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WEEKLY MEDICAL REVIEW

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VOLUME XVIII.

BOSTON MEDICAL
MAR 26 1889
LIBRARY ASS'N.

JULY--DECEMBER, 1888.

Published for the Medical Press and Library Association, St. Louis, Mo.

1888.
JAS. H. CHAMBERS & CO.,
Publishers and Dealers in Medical Books,
914 Locust Street, St. Louis, Mo.

CATALOGUED,
E. H. B.
3/26/89.

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THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 1. ST. LOUIS, JULY 7, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

CHOLERA INFANTEUM.

BY I. N. LOVE, M. D., ST. LOUIS.

Read before the St. Louis Medical Society, June 23, 1888.

The subject of this paper is likely to be of interest to us all during the next three or four months.

There are many faulty conclusions arrived at regarding all diseases, based upon a reasoning from false premises, and cholera infantum forms no exception.

An infant is suddenly seized with profuse purging and vomiting, the stools large and watery, often so thin and devoid of solid matter as to sack away into the napkins without leaving more stain than healthy urine, or possibly containing yellow or green particles and small masses of mucus, or occasionally the evacuations may be avalanches of a dirty brown liquid, in the first instances being odorless in the latter presenting a musty putrid smell which clings tenaceiusly to the person and clothing; the number of evacuations varying from ten to fifty in the twenty-four hours; vomiting and retching persistent, thirst intense, tongue devoid of moisture and pasty, a *hunted down* expression of face, constant anxious restlessness temperature rapidly running up, from 104° to 105° and reaching sometimes even as high as 108° or 109°, a small thready pulse ranging from 130 to 150 and at times almost uncountable, the picture unless modified by proper treatment passing rapidly into the stage of complete collapse, face pallid, pinched and drawn, the eyes sunken almost out of sight in the orbits, the surfaces cold and clammy, injected conjunctivæ, dulled corneæ bordering on opacity—depressed fontanelles, increased frequency and smallness of the pulse, and facial cyanosis suggestiug heart failure; the temperature frequently found below normal. The child in its entirety, seems almost to have melted away in a short time, the blood and tissues having by rapid exosmosis of their serum and general moisture through the mucous membrane of the alimentary canal being reversed in its action as an absorbing surface rapidly become demoralized; the one sluggish in its movement the other shrunken and shriveled, the resulting condition suggesting a breathing cadaver. From the outstart almost complete absence of pain.

This entire train of symptoms pronounced, severe aud like a cyclone in its rapidity tending towards death, confined almost entirely to children in the first and second years of life, so closely resembles Asiatic cholera as to have received the name cholera infantum.

Being probably non-infectious though undoubtedly due to a septic cause in the majority of cases at work in the alimentary canal, the disease may more correctly be considered the analogue of cholera morbus in the adult.

No doubt the vast majority of cases of cholera infantum have a prodromal stage of disturbed digestion, a fermentative dyspepsia and while some case may not present such a history, the preliminary symptoms have probably been overlooked and the attack appears to be more sudden than it really is. Now and then cases do occur very suddenly during the extreme hot weather with unfavorable surroundings, which resemble sunstroke in the grouping of some of their symptoms, and almost suggest the possibility of the disease being a neurosis, and the vio-

lent exosmosis of serum through the alimentary canal's mucous lining due to a disturbance of the vasomotor centers.

These exceptional cases may by some be thought analogous to the cases of Asiatic cholera which occur during an epidemic whih canbe traced to central nervous disturbances dependent upon fright, rather than the infectious matter but the great bulk of cases of cholera infantum are most likely due to septic germs such as Vaughan's Iyrotoxicon and perverted digestion. Probably the intense heat in the cases referred to produced violently acute indigestions and collapse, the same as occurs in cholera morbus of adults. There can be no doubt that intense heat and atmospheric conditions which depress the nervous system tend to superinduce attacks of indigestion more or less severe in both infant and adult, and while the majority of cases of indigestion are due to causes within the digestive tract, yet we all see cases that include external agents as being often the cause of intestinal riots.

As a factor provocative of conditions favorable to disturbed nerve centers, demoralized digestion, unequalized circulation, internal congestions and infantile troubles in general the year round. but more particularly during the intense heat of summer, the withholding of a proper amount of pure water as a drink stands prominently upon the list, and where cases can be traced to such cause good judgment would demand the relief of the famished child by a liberal supply of cooling drink, but to attribute all attacks of cholera infantum to an absence of ice water within the child when we know absolutely that the majority are due to improper feeding, septic and fermentative germs in the alimentary canal, tyrotoxicon, etc., sudden chilling of the surfaces, etc., would approach as near the absolute apex of absurdity as to charge all cases of cholera morbus in "children of larger growth" to the excessive and injudicious use of ice water under improper conditions which we know does sometimes serve as an exciting cause to acute attacks of the above disease.

We ought to educate the parents of the children under our care to the importance of furnishing the little ones plenty of good pure cold water to drink winter and summer as the necessities of the time may demand. Given in a judicious manner as to time and quantity, it will serve faithfully and well as a prophylactic against disease.

Since 1832 ice water has been freely recommended and administered for the almost unquenchable thirst in victims of cholera. It should be freely offered to the famished victim of cholera infantum and even though rejected, if given in free quantities, it washes out and cools the heated stomach. Vomiting is certainly easier and an almost irrepressible retching is often allayed by the cold water and if retained it is certainly likely to reverse the exosmotic current through the alimentary mucous membrane and re-establish absorption.

"One swallow does not make a summer" nor does one or any indefinite number of swallows of ice water cure the bona fide case of cholera infantum; many cases can be saved by various procedures, but I am strong in the conviction that the best way to save a case of cholera infantum is to prevent it.

If called during the earlier stage before collapse has ensued, when the temperature is dangerously high, I should favor the administration of cooling baths, frequent infinitesimal doses of the mild chloride with the view of tranquilizing the offended lining membrane of the stomach and bowel and for its antiseptic and antifermentative effect. Before the stage of extreme depression is reached, as a sedative and reducer of temperature one to two grain doses of antipyrine may be given, and if rejected by the stomach one-half the amount should be given hypodermically accompanied by a judicious amount (ten to fifteen drops) of purest brandy.

If stage of collapse has been reached, we will often find a child so nearly dead as to be unable to swallow, pulseless, barely breathing, temperature one or two degrees below normal, cyanosed skin cold and gummy, all the indications pointing to the necessity of stimulation.

A warm bath with a goodly quantity of alcohol in it is well, and as an aid to the securement of reaction, I believe atropia sulphate $^1/_{300}$ of a grain hypodermically to be a most valuable remedy. The application of this remedy for the accomplishtment of reaction in collapse was first suggested and extensively practiced by the late Dr. John T. Hodgen at St. Louis in the cholera epidemic of 1866. I recall distinctly the profound impression made upon my boyish mind in that trying season when Dr. Hodgen faithfully and earnestly responded to all demands day and night, and how almost enthusiastically (though no enthusiast) he applied the remedy atropia to the dying and almost dead victims of the scourge. The result was so satisfactory as to prompt him to publish a report of his cases at the close of the epidemic.

The collapse in cholera infantum being a condition identical to that in cholera proper, the application of Dr. Hodgen's idea was suggested, and I think the results have justified it. Of course care should be exercised to guard against excessive reaction.

In consideration of the fact that from the beginning of the attack there is a condition antagonistic to absorption upon the part of the stomach and bowels, I think medicines given per os are either likely to be inert or else there is grave danger, if absorption be re-established, that there may be a sudden appropriation of accumulated doses and danger follow: for this reason, and the additional one that we can absolutely control and secure the effect of our remedies, I prefer to give the agents upon which I chiefly rely (morphia, atropia and brandy) with an exception (the mild chloride) by the hypodermic plan, and the epidermic through the medium of baths.

For days stimulants, predigested milk, pancreatinized oils may be given in this manner by bathing and inunction.

The suppression of urine present is more frequently due to an absence of water in the tissues and blood than any special engorgement of the kidneys, though this may occur, and should be looked out for.

The cerebral disturbance present is more due to an anemia of the brain, and a possible effusion than active hyperemia; a danger to be anticipated is the disposition to a hydrocephalic condition. The danger of a subsequent entero-colitis should be borne in mind and the diet regulated accordingly. Animal broths, peptonized milk, bovinine, and Mellin's food are of inestimable value during the convalescing stage. Condensed milk well diluted serves admirably for temporary use, but only for temporary use as I have observed during the past eighteen years in hospital and private practice while condensed with is frequently well received as a food, nourishing and fattening in its effect the children thus nourished are subsequently delicate, flabby muscled, weak boned and prone to catarrhal disturbances of the alimentary canal.

The management of the convalescent stage brings us back to the prime cause of the majority of all the cases of cholera infantum, improper nutrition.

Whole volumes have been written upon the subject of infant feeding, and the time at my disposal will not permit a full discussion of that topic, suffice it to say from the foregoing disjointed matter, and as a corollary thereto it is my judgment, that:

I. Proper attention to diet, drink, clothing and surroundings of the little ones would protect them absolutely against the possibility of an attack of cholera infan-

2. During the intense heat of the summer it is just as important for the infant to be guarded against its dire results as for the sensitive and tender plant to be shaded by the careful husbandman. But in so doing the risk of sudden chilling of the surface from abrupt atmospheric changes should be appreciated by the donning of proper clothing at the proper time.

3. The very instant a disturbance of the alimentary tract presents itself, it should receive the most respectful attention, and the feod supply should be interrogated and properly regulated and corrected if need be.

4. The attendant who fails to secure complete information of all which passes from

his patient as well as that which goes into him fails in his duty, and is crippled in his work, and had as well have treated the case at the long range of one or one hundred miles.

5. The recognition of a septic germ chemical or microscopical in nearly all disturbances in the intestinal tract, and its antagonism is essential to the successful treatmeut of diseases affecting the digestive canal.

6. The most important lesson of all to be drawn from the history of cholera infantum and its treatment is that the arrest of the disease in the early and the diarrheal stage is comparatively easy, and that in the stage of collapse its cnre by any means whatever is entirely and altogether a difficult task.

7. Finally, I repeat the best way to cure cholera infantum is to prevent its occurrence.

WHAT HAS BEEN DONE AND WHAT HAS NOT BEEN DONE BY THE STATE BOARD OF HEALTH.

BY GEO. HOMAN, M. D., ST. LOUIS.

Secretary State Board of Health.

Read at the Meeting of the State Medical Association at Kansas City, April 19, 1888.

Mr. President and Members of the Association.—The State Board of Health at the last meeting by resolution desired me, as their secretary, to appear before you at this time for the purpose, as the resolution expressed it, of indicating what has been done, and what has not been done by the State Board of Health.

To the regret of the members of the Board, and as we believe unhappily for the State, the sum of what we have been able to accomplish is insignifcant when compared with what should have been done, but that this is unfortunately true arose through no lack of desire on our part to have it otherwise—through no culpability or dereliction of duty that may justly be laid at our doors, as we further believe.

The older members of this honorable body do not need to be told the history of the Board, inasmuch as it is in a sense the legitimate child of this association, the law creating it representing the culmination of years of effort on the part of many members of this organization.

At each recent annual meeting you have been informed in regard to the existing status of affairs as concerns the Board, and of the difficulties experienced in saving from shipwreck what was gained in legislation only after years of persevering effort on the part of some of the best of the medical profession in the State.

So far as I feel authorized to speak for the present Board it is the truth to say that the offices have sought the men—in this instance at least there were no spoils to enjoy, no official emoluments to gain.

The trust imposed upon them was to keep alive certain laws, to preserve to the future enactments the lapse of which would have been alike disgraceful to the State, and unfortunate and discreditable to the medical profession.

Rightly or wrongly Missouri has been jeered at by unfriendly critics for a number of omissions and delinquencies, real or imagined; but for the world to have known in this enlightened time that the only law by which the general health could be protected and our people defended against pestilence from abroad had been abandoned, would have fixed a stain upon her reputation, and caused a shock to the better sanitary sense of the country at large that would have reacted injuriously upon the varied business and professional interests of the State.

To my knowledge no sanitary law enacted by any State has ever been repealed without its place being supplied by an improved enactment, or an attempt in that direction; and for Missouri to deliberately abandon a law that so nearly concerns every citizen, and which is one of the standards by which the civilization and progress of a people is measured, would be to give the State a bad eminence among her neighbors for which her right-thinking sons and daughters could only blush, and as charitably cover and excuse as lay in their power.

Although the legislative cold shoulder was fully presented by the General Assembly last session, this was looked upon as a result of indifference and ignorance of the importance of the matter by legislators, rather than positive hostility to sanitary work—but whatever the reason the fact was that not so much as one dollar was placed to the use of the Board for any purpose.

After full consideration of the perplexing matter in its different bearings—regard for the fair fame of the State, for the good of the general public, for the medical profession and other special interests directly concerned —the Board concluded that because the Legislature was derelict would not justify failure on their part in performing their appointed duty to the full extent of their ability, even if to do so involved many unpleasant contingencies, and the expenditure of time, labor and private means—any future compensation for or reimbursement of which by the State seemed at best problematical; but the determination was taken to keep secure what had already been gained in progress in the hope that better times would come, when perhaps the work could be transmitted to abler and worthier hands for full development and practical application.

To make decided sanitary progress money is necessary, and as none has been furnished the Board for such purposes of necessity, no active measures in this direction could be undertaken.

The defence of the public, internal and external, against communicable diseases in man, and to a certain extent those of domestic animals, is committed to the Board, and the quarantine power was exercised with the best results in the fall of 1886, when contagious pleuro-pneumonia among cattle at Chicago threatened the entire country; and restrictive measures to prevent the spread of small-pox from local centers of contagion in the northern part of the State the past winter were also applied.

In the experience of the past few years nothing was felt to be more urgently needed than the formation of local boards of health to co-operate with State officials in prosecuting sanitary work, to furnish accurate information in regard to prevailing disorders, and to aid in the restriction of dangerous spreading diseases.

This was felt to be so important that a bill was introduced into the legislature the last regular session making it obligatory upon counties and towns to organize such bodies, but the bill failed to become a law, together with needed amendments in existing sanitary legislation, although they were favorably considered and reported.

A few of the counties have continued regularly to make returns of births and deaths as required by law, and all returns received have been taken care of, but in most of them this duty is neglected, and, in the absence of funds to pay clerk hire, the Board has been obliged to let the matter rest; the result being that there is little positively known as to prevalence of disease throughout the state based on official information.

When so much has been accomplished in this respect in Michigan, Illinois, Minnesota, and other western states, where epidemics almost die aborning, or are promptly strangled at birth, and the benefits of such work have been so fully shown,it is a cause of additional regret that our own large, rich state is so backward in this regard.

Another main division of the work is, as you know, the administration of the Medical Practice Act; and in this, as in all other important questions coming before them, the Board has stood as a unit—every member medical and non-medical alike, being alive to the importance of sustaining this enactment in its fullest purpose and power to the utmost extent of his ability.

The honored head of the Board, Major Gentry, with clear sighted judgment foresaw the confusion and mischief that would follow should this law be suffered to lapse, realizing in such event that neither reputable physicians nor the public could offer any effectual opposition to the harpies who sail under the title of doctor, and prey upon the physical misfortunes and sufferings of the ignor-

and credulous; and an instance of the wholesome operation of the law in this respect coming under his notice only strengthened his determination that it must and should be maintained—he reasoning that should the law fail not only would the state be opened to inroads and depredations of the whole brood of predatory itinerants, but that it would become a refuge and snug harbor for the medical castings of other states—those forced to emigrate through the operation of laws intended to purify and make better the profession.

There may be differences of opinion among physicians as to the utility and value of such a law as ours, but the admirable results that have followed its enforcement in other states, after years of trial, go to show that it is sound in essential principle and salutary in operation to both the medical profession and the public.

Of course, no legislative enactment, and no body brought into existence by such means, can or should take cognizance of ethical differences, of offenses within the profession: to assume such functions would far transcend their powers and duty—no law can make men inwardly honest or honorable—but grosser offenses formerly committed by unworthy medical men, flagrant villanies that received no legal check or punishment are now under ban of law, and their perpetration has been much diminished in frequency through the operation of such medical acts, favorably construed as they have been by the highest judicial tribunals of the states.

To delude the unwary and credulous by fraudulent pretensions; to impose upon the ignorance or inexperience of those suffering from mental or physical diseases; the soliciting and procuring of patients to submit themselves to medical treatment by statements intended to deceive, and which are known to be false—all these have been declared by the highest judicial authority of a neighboring state sufficient cause to forever debar a physician from being permitted to exercise his calling, and properly subject him to the pains and penalties of such a law.

Proceeding upon the lines thus indicated the Board has held the good of the people, and the medical profession as the chief concern, and accordingly has been slow to grant license in cases where there appeared good reason for such delay, or for final refusal where after full inquiry and investigation the applicant was found unworthy of such recognition.

Another useful result achieved has been the dethronement of the medical diploma, with a shrinkage of the extravagant value that once attached to it, and the establishment of the principle that such an instrument cannot be safely accepted as a voucher of the owner's rectitude through all his professional life, however honored and worthy the names affixed to it may be. The character of the man must be held to fix his standing, not a combination of ink and parchment certifying that a course of study was completed on a certain date, perhaps thirty years ago, and which is too often held up as a cover for the accumulated subsequent misdeeds and rascalities of the owner.

While all these evils which the act was designed to extirpate have not been removed, still I think it may be truthfully said that there has been a perceptible diminution effected in their volumeand while all has not been done in this direction that may be desirable still the fact that the law is alive and that injured parties can invoke its protection against unlicensed practitioners has had a salutary effect. Offenders have been punished by fine and imprisonment, and this knowledge has had a good effect outside the state, exerting a deterring effect upon free booters in other parts of the country who are meditating an incursion into the state.

Turning now, with your permission, to considerations more immediately before us, and speaking only of the other members of the Board, I may be permitted to say of those gentlemen who have always been patriotically prompt and willing in the discharge of the duties of their unappreciated positions, who have freely spent their time, labor and means in public service, who have not only borne

their own expenses but are now contributing a monthly sum to defray necessary expenses, I may, I think, say of these members as was said in Roman times: They have deserved well of the state!

But, gentlemen, while they have faithfully tried to do their duty amidst much discouragement, the issues of the near future are not in their hands but in yours. For if within the next ten months public opinion is not quickened to that extent that it shall imperatively demand of the legislative power proper material support for the Board, a year from this date of necessity it will have ceased to be. The field of usefulness for such a body is vast, the harvest is ripe, but having made a stand for the sanitary welfare of the state, and for decent, honest medical practice, the members feel that without active support from physicians, and the public whom they can favorably influence, further effort will be without avail and the laws must lapse, a contingency,as before intimated, that would be alike disgraceful to the State and unfortunate and detrimental to every reputable member of the medical profession.

RECURRENT HEMORRHAGES OF THE UPPER AIR PASSAGES.

BY WILLIAM PORTER, M. D.

Discussion opened by Dr. William Porter, of St. ouis. Section on Laryngology. Ninth International Medical Congress, 1887,

Mr. President.—You have asked me to speak on a most interesting topic. I will not attempt to present it fully, but rather to make some suggestions along which the line of argument may run.

First let me limit the geographical boundaries of the term, upper air passages. Epistaxis forms the subject of another discussion and we will not include that at this time. Bronchial hemorrhage is rare except as a complication of pulmonary involvement, and when found is discovered by the use of the stethoscope rather than the laryngoscope, by hearing rather than by sight. While many of us include diseases of the chest in our field of work, it is proper here that we should as far as possible confine our remarks to laryngological topics only. Excluding then for these reasons epistaxis and hemorrhage from the bronchial tubes, let us turn our thoughts to recurrent hemorrhage of the larynx. Again I think we need consider those cases only in which the hemorrhage is of idiopathic origin. Interesting essays have been written upon such themes as hemorrhage following uvulotomy [Morgan] and tonsillotomy [Lefferts], but such phenomena, these and other writers upon kindred subjects have mentioned, can scarcely be called recurrent, but rather persistent and constant. Two cases may be used as illustrations of our subject.

The first was recurrent hemorrhage from the larynx. Miss K., about eighteen years of age, with good family history, consulted me because of frequent bleedings, which she feared originated in the lungs. She had had some hoarseness and at times soreness in the glottic region, but not constantly. A careful examination of the chest did not enable me to locate the lesion. At that time I could not discover any abnormal condition suggesting hemorrhage in the upper air passages, although there was a chronic laryngitis and pharyngitis. A few days later she again called, she had been bleeding slowly for some hours, and was still expectorating blood at intervals. This time the source of the hemorrhage was found. A small perforating ulcer which had escaped my attention at first examination was seen on the right ventricular band, and after removing all the exuded blood by absorbent cotton, the fresh blood could be observed coming from the ulcer. A solution of iron and glycerine promptly controlled the hemorrhage. There was recurrence of the hemorrhage several times and the ulcer healed slowly. Rest was enjoined, phonation restricted, and after two weeks there was no return of the bleeding. There has been entire absence of the symptom for two months and the laryngitis under treatment has improved though not entirely relieved.

Where there is extravasation of blood into

the submucous tissues of the larynx serious complications may ensue,and death may quickly occur from obstruction. One of the most interesting monographs upon this subject was published by Dr. Gleitsman in the *Amer. Jour. of the Med. Sci.*, April, 1885. After recording a typical case of his own he mentions a number reported by others. [Mandl, Fraenkel, Lewin, Hartman, Wagner, Ingalls, Knight, Morgan]. Some of these gentlemen being present, will doubtless recall the cases to which I refer. Hemorrhage from the larynx is not a disease, it is but a symptom and must be treated as such. Generally resulting from some form of laryngitis, simple, tubercular or in rare instances syphilitic, yet a prominent factor in its production may be a faulty heart action. In one case at least, topical applications were insufficient, until the heart, unable to do its work through mitral lesion, was aided by rest of the body and digitalis.

Hemorrhage from the pharynx may easily be mistaken for hemoptysis. In 1882, I reported two cases to the American Medical Association in the Section on Laryngology. In each of these cases there was some slight pulmonary lesion, and when the hemorrhage appeared it was but natural to think that its origin should have been in the lungs, and in each the true site was in the pharynx. Since then I have seen several similar instances, the following case being typical:

Mr. N., a young attorney of St. Louis, having had during previous years several attacks of bronchitis, was one day surprised by the rapid discharge of blood from the mouth. He was sure the hemorrhage came from the right middle lobe, where he had had some pain during the attacks of bronchitis mentioned. The bleeding had ceased when I saw him and although there was evidence of a slight chronic bronchitis, the percussion note, vesicular murmur, and rhythm were normal. Some days afterward Mr. N., again came. He had had a slight bleeding several times during the day. In my search for the source, I passed a bent cotton covered probe into the upper pharynx and was rewarded by the reappearance of hemorrhage, the blood trickling down from behind the soft palate. Suffice it to say that a small ulcer was found on the posterior wall of the velum a little to the right of the median line, and I need scarcely add that with this discovery all fear of lung complication speedily passed from the patient's mind. There was no further hemorrhage, the ulcer rapidly disappearing under slight treatment.

The thought which I would offer in submitting these condensed histories is that hemorrhage from the upper air passages is not infrequently a complication of chronic inflammation of the larynx or pharynx, and that it may be mistaken for hemoptysis or even hematemesis. This being admitted in all cases of hemorrhage from the respiratory tract of doubtful origin, there should be careful examination of the upper air passages.

Addendum. Since the above paper was presented to the section the following typical case has been added to my record.

Mr. L., of New York, was seen in May 1888. and gave this history. Six years ago had pneumonia with slow convalescence, and six months after had hemorrhage which the physicians said was due to the pneumonia.

He had no further evidence of pulmonary disease for over five years. A week before I saw him he suddenly began spitting blood, and felt an uneasiness in right chest the supposed side of the former attack. The hemorrhage which was not at any time great, continued with short intermissions until my examination.

The chest so far as could be determined, was normal and the larynx healthy. There had been no bleeding for several hours. Remembering my former experience I passed a cotton covered probe up behind the pharynx, which came away covered with blood. A clot was removed and a large superficial ulceration found at the pharyngeal vault.

It is needless to add that with the termination of the hemorrhage the patient forgot the pain in the chest, regained his appetite and resumed his business.

ECLAMPSIA NUTANS.

BY W. M. GROSS, M D., GILLESPIE, ILL.

Presented by Frank R. Fry, M. D., before the St. Louis Medical Society, June 16, 1888.

Before reading Dr. Gross' communication, I will state that I saw the case he discusses, early in February of the present year. From the mother I obtained a history about as follows: The child then four years old, was from infancy nervous and excitable, but healthy in appearance and always a quiet sleeper. Had no serious illness until 15 months old when it had a "bilious" attack. Similar attacks followed at varying intervals. They were accompanied with violent vomiting of everything taken into the stomach, until finally bile in large quantities was either thrown up or passed by the bowel. Then followed high fever with great thirst and foul breath, lasting two or three days. At the age of 18 months during one of these attacks there was a convulsion. From that time any thing that deranged the stomach, as the eating of too much or improper food, seemed to cause the convulsions. Sometimes they came in spite of all watchfulness. The patient had been at one time in a "convulsive state" for ten or twelve hours.

In August 1887, the patient was knocked down by a running horse. He sustained no apparent injury beyond a nose-bleed. Soon after he fell on a stone walk and hurt his left knee to such an extent that it was swollen and painfully sore for two or three weeks after. At this time he began to fall forward in a rather unaccountable manner, and the parents attributed the frequent falls to the sore knee. At first the falls were unattended with convulsive movements, or a loss of consciousness. Later the falls were more violent, the head—the top part of it—striking the floor or ground with much violence. The left top part of the head invariably struck, and from the repeated hard blows became bruised and swollen, and a padded cap was put on for protection. There was much swelling above the eyes. The swelling disappeared after three or four weeks. During the time it existed the child seemed feverish, was very nervous and excitable when awake and restless when asleep. Finally he was seized with a chill followed by high fever, and five hard spasms during the night, seemed to be strangling as though swallowing considerable quantities of fluid. Next morning complained of sick stomach and threw up a quantity of dark bloody looking substance in which there was some pus.

After this he improved steadily, having a slight convulsion now and then, and the falls continuing daily up to the time I saw him.

I have recited the above history because I think it will supplement the account given by Dr. Gross, which is as follows:

ECLAMPSIA NUTANS.

Gentlemen of the St. Louis Medical Society permit me to present the following brief history of the condition of the little son of Mr. and Mrs. M., of Gillespie township, Macoupin County, Illinois, for your consideration. The subject of this sketch was born March 7, 1884, and from birth to the present has been very nervous and excitable but otherwise apparently strong and healthy, in the language of the mother "too healthy to have a history until fifteen months old." Probably the nervousness and excitability of this child can be best explained upon the theory of congenital defect—either a contracted condition of the membranes of the brain and cord or an excess of cerebro-spinal fluid. One of the functions of the cerebro-spinal fluid is to regulate the internal pressure required to properly counterbalance the blood-pressure in the vessels of the brain and cord and assist in bringing back the internal ganglia of the brain to a state of quiescence after being in a state of vascular activity. Aside from nervousness and excitability this child has appeared all right, has grown rapidly, and was free from any serious trouble while its only nourishment came from the mother's breast, but as soon as it began to partake of the good things of the table its real trouble arose. The eating of sweet-meats or any other article of food hard

to digest brings on febrile gastric disturbance. Cerebral hyperemia usually supervenes upon these attacks and convulsions are threatened. The patient remained in this condition for a year and a half and appeared lively and all right when free from gastric trouble. On or about August 1st 1887 it was knocked down by a running horse. It grew worse rapidly. Eclamptic seizures came on usually soon after arising in the morning, would fall forward as if making a bow, the top of the head would strike the floor without apparent loss of consciousness. The head became so badly bruised that we put on a padded cap for protection. Three weeks after the accident with the horse the head began to enlarge, the sutures become separated and there was bulging at fontanelles. The back part of the neck seemed to be in a pinched or contracted condition with shot-like nodules in region of colli muscles. During the time these aggravated symptoms were present the mother slept with the child, and at some time in the night she became very much frightened at symptoms of strangulation. Rapid swallowing brought relief, but the child soon vomited a large quantity of dark clotted blood. The enlarged condition of the head subsided at once, the convulsive seizures grew less but did not cease entirely. Probably the hydrocephalic condition can be best explained upon the theory of hemorrhage of the brain or its meninges. Cambournac, Blandin and others have laid great stress upon the emissary veins described by Santorini as the anatomical explanation of the production of meningeal or cerebral hemorrhage by wounds of the skull not resulting in fracture. There was evidently a mass of blood deposited in the region of the undeveloped sphenoidal sinus,and as this sinus is lined with a continuation or the mucous membrane of the nasal chambers, it found an outlet through these chambers. As the child was in a recumbent posture the blood passed the posterior nares, was swallowed, and soon after ejected by emesis. Probably the spasmodic seizures can be best explained upon the theory of bilateral clonic spasm of the sterno-mastoids (salaam convulsion of Newinham). These muscles are supplied by the spinal accessory and deep branches of the cervical plexus of nerves. The spinal accessory nerve passes to the interior of the skull through the foramen magnum and out of it through the jugular foramen, where it has intimate structural association with the pneumogastric nerve. As the convulsions came on soon after arising in the morning and while in the erect posture, it is quite probable that pressure upon the accessory nerve while within the skull was the real cause of these seizures. Have observed that when the urine is free and heavy the child is more quiet than when it is otherwise. The quantity of urine passed in 24 hours varies from three to four pints. The specific gravity ranges from 1008 to 1022. Have observed that if the specific gravity fell below 1010 convulsions were threatened. There is no hereditary taint in the blood of the family so far as can be ascertained. Trusting that a discussion of this case by your society, will elicit something that will benefit all concerned I remain,

Wm. M. Gross, M. D.,
Gillespie, Ill.

I am sure the members will agree with me that this is a case of unusual interest, and I am glad of an opportunity to present it. The two most pertinent points suggested are, first, what was actually the condition of the child's head? Was it what Dr. Gross believes it to have been or something else? and secondly, what is the distinction between eclampsia infantum or nutans and epilepsy? Was this a case of epilepsy?

The case improved rapidly under a liberal use of bromides, and has had a convulsion of no kind for some time past.

A LOCAL TREATMENT FOR VAGINISMUS AND VAGINITIS.

BY N. GUHMAN, M. D.

As it is my purpose to give only a local medical treatment for the disease I have mentioned, I do not think it is necessary to go into the pathology of them or to mention all the causes that may produce them.

Vaginismus, as you all know, consists of a hyperesthesia of the nerves supplying the mucous membrane and muscles of the vagina, and its orifice, which upon being irritated produces a spasmodic contraction of the sphincter and other vaginal muscles. This condition may be due to functional or local causes, more often the latter.

Vaginitis is an inflammation of the lining membrane of the vagina, and it may be of a specific or a non-specific character. This disease is often connected with vaginismus.

In the treatment of these troubles the first step is to remove the cause if this be possible.

In vaginismus you are aware that it is not easy to introduce a speculum, or even the finger into the vagina, without considerable pain to the patient.

My method of proceeding in these cases is to place the patient on her back, the pelvis somewhat elevated and the knees flexed. I either introduce a bivalvular or a small cylindrical speculum, I prefer the former as on account of its flatness it is easier introduced. Before introducing it, however, I lubricate it with vaseline, and then take a camel's hair brush and apply a four per cent solution of cocaine both to the speculum and to the orifice. I then introduce the speculum into the vagina and very gently open the blades. By this means I give the patient very little pain. After placing a small roll of cotton beneath the speculum across the perineum, I pour into the vagina through the specnlum, a solution compound of sulphate of zinc one or two grains, chloral hydrate five grains, water and glycerine of each four drachms. I wait several minutes and then withdraw the speculum slowly but not completely out of the vagina.

As I withdraw the speculum, the walls of the vagina come together and the solution touches every portion of the mucous membrane. I now push the speculum back again, and introduce a small cotton tampon with a string tied to it, pushing it back with a long dressing forceps, at the same time withdrawing the speculum.

The tampon will absorb that part of the solution which remains in the vagina and that which escapes will be absorbed by the cotton on the perineum. I now place a piece of cotton between the labia, apply a bandage and the operation is completed.

I let my patient remove the cotton and withdraw the tampon in from four to six hours afterward.

I repeat this treatment three or four times a week. After the first treatment I have no need for the cocaine, as the finger or speculum can be introduced without giving much pain.

In vaginitis I proceed in the same way except I do not use the cacaine solution.

In vagiuitis the chloral acts as an anesthetic to the mucous membrane and vaginal muscles.

Between visits I have my patient to use vaginal douches of hot water with a little borax added to it.

By this treatment I have secured excellent results, and my patients and their husbands, (if they had any) appreciated it very much in vaginismus.

NEW YORK ACADEMY OF MEDICINE.

At the last meeting of the Ophthalmological and Otological Section of the New York Academy of Medicine the following motion was made and carried:

"That a committee be appointed, of which the chairman of the section, Dr. David Webster, be a member, whose duty it shall be to obtain a good photograph of the late Dr. Cornelius R. Agnew, for the purpose of having engravings suitable for framing made from this. The right of issue and sale of such engravings shall be given to some first-class publisher, if practicable; if not the committee shall offer them to the profession, at cost."

In accordance with the above, a committee has been appointed. Members of the profession who desire such an engraving accompanied by an autograph signature, should send their names and addresses to the Secretary of the Committee, Dr. Charles H. May, 640 Madison Avenue, New York City, at once. When all such names shall have been recorded, those who have requested a copy of the engraving will be notified of the cost of the same, either by the publisher, or by the committee having the matter in charge.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

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SATURDAY, JULY 7, 1888.

THE IMPORTANCE OF ANTISEPTIC FIRST DRESSINGS IN ACCIDENTAL SURGERY.

In the light of present surgical knowledge in regard to the antiseptic and aseptic method of wound treatment, the importance of thoroughly antiseptic first dressings is plainly obvious.

The majority of accident wounds do not come primarily under the care and observation of the practically skilled surgeon, either in private or hospital practice; but as a rule are first administered to by laymen or the general practitioner.

It is of as much practical importance to the general practitioner, that he should have a general knowledge of antiseptics, and their proper application, as that he should have a general knowledge of ophthalmology, etc., so that he may determine what cases he can safely treat and what he should send to the oculist or other specialist.

For it is often in the proper first treatment and dressings of an apparently trivial wound that serious after results may be averted.

Thus the puncture of a joint or opening of a sheath of a tendon if primarily antiseptically dressed and placed in proper position, in the majority of cases, under strict antisepsis will recover without loss of function; yet, on the other hand, if carelessly handled and an improper first dressing applied what direful consequences too often follow, in the way of indefinite suppurative processes, loss of time, besides the agony to the patient and loss of function of the part, and not least the chagrin at such a result, to attendant physicians.

Perhaps nowhere is the old law "A stitch in time saves nine" more applicable than to antiseptic surgery; for when this is properly applied primarily and persistently kept up, it surely saves "nine" and many times "nine."

If the importance of antiseptic first dressings could be generally understood, how much, pain, labor, and many lives could be saved.

Yet the understanding and appreciation of this topic does not seem to me to be so difficult. It is perhaps as much a matter of indifference as a lack of knowledge on the subject. To examine a woman during parturition without first thoroughly cleansing the hands, would at this day be considered criminal, yet does it not occur every day that wounds are probed and handled with unwashed fingers, and no further thought given the matter? the parts dressed and patient sent to the hospital or to their home? and what follows as a rule? suppuration or septicemia! Not until the importance of thoroughly antiseptic first dressings is fully understood in accidental surgery will we get the full benefit and good results that antisepsis is capable of in this department of surgery. Every one in the profession cannot be a thorough practical surgeon, but every one should understand the importance of antisepsis in everything pertaining to his sphere. It is a duty that he owes to himself, the public, and to the profession.

A. H. MEISENBACH.

SOCIAL POSITION OF MEDICAL MEN.

An abstract of an address by Thomas William Thursfield, M. D., on the social position of the medical profession in England is published in the *Brit. Med. Journal* of June 16.

Dr. Thursfield said: "I think it will be admitted that we do not stand so high as the Bar or the Church; and yet the attainments of the members of our profession their character, their self denial, and their public services are acknowledged on all hands, and should command for them a respect as high as

that in which any other profession is held."

He says that this is partly due to ignorance or jealousy on the part of the public. We fail to see how jealousy can play a part, since there is no more rivalry between the people and medical men than between the people and the other classes mentioned; and as for the ignorance of the public its opinion is formed on the facts as presented, for which the profession is responsible.

As accessory factors which conduce to the forming of this low estimate of the profession on the part of the public, Dr. Thursfield mentions a number of "faults in the profession" which have been pretty thoroughly aired by the medical press of this country.

He thinks it was a mistake to abolish the apprenticeship or pupilage system as a part of the course of preliminary education. Many of the medical colleges in this country require certificates to the effect that the applicants for degrees have served such an apprenticeship. In the vast majority of cases such certificates are not worth the paper upon which they are written.

As to the necessity for a higher standard of medical education, we believe the profession will unanimously agree, but the question is how is this to be accomplished. Dr. Thursfield says: "When one looks at the vast domain of medicine, one is lost in wonder as to how it is possible in the short space of four years or less, to get anything like a concise knowledge of the subject into a young fellow's head." We have taken occasion from time to time to express our views on this point to the effect that a three years course of didactic lectures is amply sufficient. That in which the present system of medical teaching is so deficient, is actual bed-side experience in dealing with disease.

The struggle for existence will ever make professional etiquette requisite to combat the injustice that arises from professional jealousy.

If Dr. Thursfield is correct in saying that a lack of interest in politics has had much to do with the public estimation of English physicians, then public opinion is essentially different in England from what it is in America, for here "medicine and politics don't mix."

All this however, has a bearing upon professional rather than social standing. The time has passed, in this country at least, when the latter is based upon the former. It has been said that every man is the builder of his own fortune. It can be more truly said that every physician is the builder of his own social position. As in the other professional callings medicine has its social grades from the lowest to the highest, and each new addition to our ranks takes his social position not according to his qualifications as a physician but according to his ability to make himself agreeable to the people he meets. No vocation offers better facilities or greater inducements for the cultivation of those traits that make one a welcome guest in the homes of the best people of the land, than does the practice of medicine. It demands cleanliness of person and heart and at least a fair cultivation of the faculties of the brain.

Attention to Details.

Nothing else has conduced so much to the marked advance made in the medical and surgical treatment of disease as has the recognition on the part of medical men of the importance of attending to the minor details in practice. Formerly patients were supposed te succumb to disease as an entity; now we know that many lives are saved by lessening the severity of the attending conditions, such as high temperature, inanition, weakened heart action and the like.

The surgeon's greatness is no longer measured by his manual dexterity, but by the percentage of recoveries in the cases upon which he operates. When we realize that such a seemingly unimportant matter as the not using or using sponges to cleanse the peritoneal cavity that have been used to remove the contents of a cyst means success in the one case and possibly death of the patient in the other, the importance of the "little things" is apparent to us all.

After performing his first operation, how often is the operator painfully aware that he could do better had he his work to do over !

Dr. J. H. W. Chestnut presaged his report, before the Philadelphia Medical Society, of a successful ovariotomy by saying:

Under the benign influence of antiseptics, the recent progress of abdominal surgery has been so remarkable and the number of ovariotomies has been so considerable, that this case is reported not because of special characteristics, but rather as a further demonstration or exemplification that the operation in question has been removed from the borderland of doubt and has become one of those which the general practitioner, who does surgical work, may, under proper circumstances, essay to perform.

To this Dr. G. G. Davis took exception, holding that no one should open the abdominal cavity unless he is prepared for whatever may be found, and only those who had a certain amount of preliminary training and are prepared to follow up the operation with the most radical procedures, should do these operations.

The management of the case reported by Dr. Chestnut proves that he is one general practitioner who may essay to perform such operations, but the principle expressed by Dr. Davis is correct. The majority of general practitioners who "do surgical work" have never had an opportunity for seeing an ovariotomy performed, and no one should undertake so grave an operation without first having the various essential details impressed upon his mind by carefully watching the methods of some experienced surgeon. We are in honor bound to give our patients the best possible chance for recovery.

It may be urged that such a course would place all cases of abdominal surgery in the hands of specialists. This, however, would not necessarily be so; here and there we find a general practitioner who, aside from his general work has taken advantage of his opportunities to fit himself for such special cases. But the fact that one physician may acquire superior skill to another in the treatment of certain difficult diseases, makes specialism a necessity. Selfishness should give way to the broad principle of right when the interest of the patient demands it.

The Therapy of Tuberculosis Pulmonis.

Since it was first discovered that in some cases of consumption the morbid processes in the lungs were arrested and the patients regained comparative perfect health, there is perhaps no other disease for which so many remedies have been recommended and so many theoretical plans of treatment proposed. The discovery of the tubercle bacillus by Koch has increased the efforts of medical men to discover the best methods of treating the disease. Further encouragement has been given by the discovery on post-mortem examination that the percentage of recoveries is much greater than was formerly supposed. We cannot believe, however, that Dr. J. T. Whittaker is correct in saying (Med. Register) that the majority of cases recover.

It has long been known that sending patients to high and dry altitudes is the most efficient therapeutic measure at our command. Recently it has been held that the beneficial result obtained by this measure was due to increased expansion of the lungs, and that this can be accomplished in low lands as thoroughly as in the higher altitudes.

It is now universally understood that the prime indications are to see that the patient has a bountiful supply of fresh air and to increase the nutritive forces of his body. It is, how to accomplish the latter, that the greatest difference of opinion is held.

Dr. Whittaker says that alcohol is a food of the highest force value. He holds that its therapeutic value lies in the generation of force and heat by oxidation. Unquestionably alcohol reduces the temperature when administered in certain fevers, and it has been clearly proven that when taken by a healthy man it lessens his power of resistance to the effects of cold. Its stimulating properties in some cases has a temporary good

effect but if persisted in it will do more harm than good. Recent compilations of statistics show that the constant use of alcohol lessens the power of the individual to resist disease, and we cannot believe that the tubercle in the lungs will in any way prevent such an effect.

In advanced and apparently hopeless cases Dr. Whittaker found that one drop doses of sulphide of allyl given after each meal and increased one drop each day diminished the cough, and expectoration, and stopped the night sweats quicker than any other remedy that he had used. There was a very serious objection to the remedy; on account of the offensive odor of the breath and person of of the patient his friends could not remain near him. Dr. W. is now experimenting with oil of black mustard.

A Preventive Treatment for Hay Fever.

Dr. Carl Genth, having observed in a comparatively large number of cases that symptoms of conjunctivitis were the first to indicate the approach of an attack of hay fever, he concluded that for treatment to be effective, the condition must be attacked by local application to the eyes at the earliest possible date. If his theory, as given in the *Brit. Med. Jour.* of June 16, be true—that the involvement of the nasal mucous membrane is always or nearly always the result of an extension of the inflammation from the conjunctiva, then he has made a discovery that will be a boon to the many victims of this harassing disease. Unfortunately, however, it is easier to construct a theory than to prove it by facts. So far Dr. Genth has given us no facts to substantiate his theory. His treatment was "instillation and bathing of the conjunctiva with sublimate solution of the strength of 1 to 3000. In only one case did he meet with any success, and in this a modified attack came on later.

We are inclined to think the conjunctival affection is secondary to irritation of the nasal passages and the "twitching sensation at the inner corner of the eye" (which Dr. Genth mentions as premonitory) rather confirms our belief.

We have not known of any cases of nasal catarrh that were cured by making applications to the conjunctiva, but we have cured cases of conjunctivitis by relieving the irritable condition of the nose.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

After a three months' use of antifebrin I am persuaded that in it we have a drug which for purposes of reducing fever, controlling pain, procuring sleep, etc., can be absolutely relied upon. In all conditions where I had previously used antipyrin except as an antispasmodic in whooping cough, asthma, etc., I have found the effect quite as efficient and in many cases to be preferred, as I believe it is less depressing and smaller doses suffice.

Antifebrin possesses the advantage of being about one-half as expensive, and, in addition, it is not a patent medicine.

Doctor Knorr, the discoverer of antipyrin shrewdly patented it, and is reaping a rich harvest, and has had the advantage of most patent medicine venders in that his drug has been advertised in the medical journals all over the world, without money and without price.

Even though antifebrin and antipyrin were equally good and similarly cheap, the former would deserve the preference of the consistent physician, on account of being not patented.

* * *

The following formula is a pleasant and convenient form of administering antifebrin, viz.:

℞	Antifebrin, - -	℈ij
	Alcohol, - -	ʒij
	Glycerine, - -	ʒiij
	Aquæ cinnamomis, -	℥j
	Syr. simpl., - -	ʒiij.

M. Sig. One half teaspoonful to two teaspoonfuls every two to four hours, according to age and necessities.

The alcohol prevents the disposition to depression on the part of the drug.

* * *

The St. Louis Medical Society adjourned Saturday evening, July 1, 1888, for the summer. It has been mutually agreed by the members of the "Round Table Club" (who also belong to the "Can't Get Away Club") to meet every alternate Saturday night at the Faust Terrace, corner 5th and Elm, and there discuss affairs of science, the good of the profession, soft shell crabs and French lobsters, with an occasional milk-shake.

* * *

The Kentucky State Medical Society meets at Crab Orchard Springs, Kentucky, July 11, 12 and 13, and in looking over the list of thirty-three papers upon the programme and noting the character of those who present them, I am impressed with the fact that a feast of reason is in store for those who are fortunate enough to be present.

Those solid wheel horses of the Kentucky profession, Drs. Arch. Dixon, W. H. Wathen, Dudley S. Reynolds, E. R. Palmer, J. B. Marvin, Henry Orendorf, Fayette Dunlap, L. S. McMurtry, P. B. Scott, John A. Larrabee, W. O. Roberts, H. H. Grant, J. M. Mathews, M. F. Coomes, Ray, Cheatham, Bloom, Price, Anderson, Roberts, Bailey, McCormack, and last but not least, the one strong man of eminence whom to know is to love, the blushing and diffident O. D. Todd, the possessor of a No. 9 hat and a 22 inch collar, will be there.

* * *

July, jumping and jolly and duly hot, is here, and in spite of old Sol's supreme efforts in the melting direction, the WEEKLY MEDICAL REVIEW is thriving. She presented her honest and smiling face to not less than thirty thousand doctors last week, and it is fondly hoped they were one and all pleased.

* * *

Next to a swollen and contented subscription list nothing is more gratifying than kind words of appreciation from our exchanges. I note the following in the June number of Lanphear's lurid, lucid, lively, solid and substantial *Kansas City Med. Index* (one of the most original and interesting journals in the exchange list, by the way), viz.: "—— is putting in some excellent work on the WEEKLY MEDICAL REVIEW. *En passant*, a journal without *personal* editorial writing cropping out, is a pretty dry thing. The profession of to-day wants something brief, chatty and pleasant mixed with the heavy scientific (?) articles which constitute the greater part of medical publications. The day of editing a medical journal with a pair of scissors is past."

The *Index* is right. In running a medical journal, the same as in everything else it is work that tells.

The one who works earnestly, constantly and conscientiously, is bound to succeed, no matter in what department of labor he may be engaged.

He will not always please—he will meet with much criticism, both kind and unkind, but if he keeps his face to the front and his hand to the plow, he will be sure to accomplish a decided good to the world and to himself.

He that is slow to act for fear of failing to please will crystallize into a drone. The shrinking, mild and unaggressive man is usually hen-pecked in his home, and handicapped in his fight with the rude and bustling world.

* * *

That the St. Louis Medical Society during the six months of Dr. Bond's presidency has been doing admirable work all will admit. The attendance has been uniformly very large and it is becoming a pertinent question whether a division into sections would not be a good idea at this time. The executive committee has at every meeting presented a full programme and given evidence that Dr. Bond in appointing Drs. Mooney Hall and Brokaw, Jr., selected wisely and well.

* * *

I notice in the *London Lancet* a report of a man at Limerick having been fined twenty shillings for allowing the body of his child, who had died from scarlatina to be "waked."

The child, it is stated, was not placed in the coffin for hours after its death, and at the "wake" twenty persons were crowded into a small room in which the body was placed. The custom of "waking" is a relic of the dark ages and should be prevented by law in all cases, but it is especially brutal and dangerous where the cause of death has been an infectious disease.

Even the intellectual electric light of this century has not been sufficiently strong to dispel the shadows from many of the hovels in the centers of population in our large cities.

* * *

It is an interesting fact that the administration of salol, salicylic acid and the salicylates has an influence upon the "diabetic center" as the urine of patients saturated with these drugs almost invariably gives evidence of sugar being present.

Dr. Frederic W. Burton, of Cambridge, England, found upon the examination of the urines of twelve consecutive patients deeply under the influence of salicylic acid, salicylate of soda, or salol, and has never failed to find sugar, though sometimes the amount is so small that a yellow precipitate only forms when the test tube has stood for some minutes, and the largest amount observed has been only six grains to the ounce. He observes that the combination of hydrobromic acid, codeia, or jambol with the salicylate does not have the effect of preventing this glycosuria, though, as pointed out by Dr. Ringer, the first drug certainly lessens the other head symptoms it produces.

* * *

At the recent annual meeting of the American Medical Editors' Association, the following able roster of officers was elected for the coming year:

President, Wm. C. Wile, A. M., M. D., *N. E. Med. Monthly*, Danbury, Conn.

Vice President, Dudley S. Reynolds, A. M., M. D., *Progress*, Louisville, Ky.

Secretary and treasurer, J. C. Culbertson, A.M., M. D., the *Cin. Lancet and Clinic*, Cincinnati, Ohio.

Censors, Y. H. Bond, M. D., *Med. Review*, St. Louis, Mo.; R. J. Dunglinson, A.M., M. D., *College and Clinical Record*, Philadelphia; Wm. Davis, A. M., M.D., *Northwestern Lancet*, St. Paul, Minn.

* * *

I fear we doctors are not as a rule as attentive to the little details of bedside management in the sick room as we should be.

In the administration of medicine in spite of the fact that many drugs are objectionably affected by being administered by means of a metal vehicle, the routine plan of using the spoon is persisted in, when the elegant measuring glass can be secured with but little trouble, and the dosing agreeably, exactly and safely accomplished.

Apropos to this, I clip the following pointed screed from the *N. E. Med. Monthly* for June:

THE OLD SILVER SPOON.

How fresh in my mind are the days of my sickness,
When I tossed me in pain all fevered and sore;
The burning, the nausea, the sinking and weakness,
And even the old spoon that my medicine bore.
The old silver spoon, the family spoon,
The sick-chamber spoon that my medicine bore.

How loth were my fever-parched lips to receive it,
How nauseous the stuff that it bore to my tongue,
And the pain at my inwards, oh naught could relieve it,
Though tears of disgust from my eyeballs it wrung.
The old silver spoon, the medicine spoon,
How awful the stuff that it left on my tongue.

Let us cultivate a regard for the esthetics of the sick room as well as develop a thoughtful kindly sympathetic personal interest in our patient, none the less closely observing the clinical aspects of the case. If we do we must of necessity discard at once and forever the ubiquitous unsightly spoon, whether it be the gold or silver one of the palace, or the plebian iron or pewter of the hovel.

* * *

The Michigan State Medical Society met in

Detroit June 14 and 15, and was in every way a successful meeting.

The programme was a good one.

The society was entertained by Dr. Leortus Connor, the accomplished editor of the *Amer. Lancet*, in his charming and elegant home, presided over by his rarely cultivated and beautiful wife. Would that every doctor in the land were blessed with an inspiration like unto that possessed by Detroit's able representative, Dr. Connor.

CORRESPONDENCE.

NEW YORK LETTER.

New York, July 1, '88.

Editor Review.—A recent decision in one of our courts is of general interest to physicians as bearing on the right to establish private hospitals in a street otherwise restricted to private dwellings. The managers of the Babies' Hospital, a new institution, rented for their use a dwelling house. The owner of the adjoining property brought suit against them to prevent their occupancy. He claimed first, that the hospital would necessarily harbor contagious diseases, thereby endangering from proximity the health of his own family and neighbors; secondly, that the value of his property would be depreciated from the nearness of the hospital which would in, be legal parlance, a nuisance.

The court decided in favor of the property owner and against the occupancy of the rented house for hospital purposes. The decision says, "In my judgment the nuisance is not a nuisance prima facie. While not within that class, there are several features inseparable from its maintenance proper for consideration upon the condition of its being shown a nuisance from its way of management. In these are included the noise of patients, their advent, removal and death, with its consequences. From the evidence appears the reasonable propability of contagious disease provided for by a wise prevision, although limited to cases to develop after reception. While this may diminish the number, it does not remove the important factor. The locality is shown wholly devoted to private residences until this most laudable undertaking selected the house for its accomplishment. To my mind the hospital is not a reasonable use of property considering the locality and surroundings.

The Judge holds, moreover, that a restrictive covenant in the deed providing among other things, that "no building, trade or business which may be dangerous, injurious or offensive to the neighboring inhabitants shall be built, allowed or carried on the above granted premises" is fatal to the defendant.

There is but little doubt that general public sentiment will sustain this decision. The only special argument in favor of this particular locality is its central location, and this is justly not considered as an offset to the danger to public welfare.

So much has been done in New York for training women as nurses that it gives me pleasure to chronicle the establishment in connection with Bellevue Hospital of a similar school for men. A new building for this purpose was commenced a year ago, and the other day was formally dedicated. The donor is Mr. D. O. Mills, through whose generosity a model edifice has been erected as a general dormitory and house of instruction while the practical work is carried on in the wards of the hospital. Over a mantel in the main hall is placed a tablet bearing the following inscription: "The number of infirm and sick men who reach our city hospitals makes it necessary to educate more nurses. To aid in establishing a training school for this purpose, D. O. Mills, a citizen of New York, erected this building and presented it to the city as a home for male nurses employed in the hospitals." The speakers of the occasion were Mayor Hewitt and Mr. Depew. The latter was fresh from the Chicago Convention and his opening words were as follows:

Ladies and Gentlemen: It is a violent but most comfortable charge to be so suddenly translated from the turmoil and strife of National politics to this quiet field of benevo-

lence and charity. I thought as I stood in that largest auditorium in the world, facing an audience of ten thousand people and swayed by their shouts of approval or disapproval, that nothing more impressive, exhilarating and magnificent could possibly be experienced. But this little company and the spirit which calls us together, so beautiful, pure and permanent, is worth all the ephemeral triumphs and successes of popular assemblages.

The latest society matter of importance is the nationalization, so to speak, of the Medico-Legal Society. Nearly every state has an organization of this kind, and it is proposed to hold an international congress next spring. At present the energies of the organization are directed especially toward the subject of insanity from drunkenness. The President, Mr. Clark Bell has now in press a work entitled "The Medical-Jurisprudence of Inebriety."

The Hon. Noah Davis has submitted to the society an able article on this general question. He says, "Whether drunkenness be or be not a disease is not the point now to be determined but, the point is whether drunkenness, if it be a disease, is or is not to be treated like other diseases in the commission of crime. No disease excuses any man for the commission of crime."

The College of Physicians and Surgeons has finally adopted a graded course of three years for all who shall matriculate for the first time with the coming session. The length is three years. The fees have been raised considerably. Considerable laboratory work which has heretofore been optional is now required. Examinations will also be held on the work of the clinical professors. The term is to run several weeks longer in the spring.

The new clinical and maternity service of the college are how running satisfactorily. The latter is averaging about six cases a week. J. E. N.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening, June 9, 1888. The president, Young H. Bond, M.D., in the chair, J. B. Prichard, M.D., Secretary.

Dr. N. Guhman read a paper on "The Local Treatment of Vaginitis and Vaginismus."

Dr. Bond.—In my experience, and in the experience of most members of the profession, many cases of vaginismus are exceedingly difficult to cure. There are cases, of course, in which we have a simple vaginitis, with an irritability of the vagina resulting from the vaginitis. These cases we can very readily control, and the local treatment suggested by the essayist may be sufficient. But there are cases, such as were pointed out by Dr. Sims in 1861, in which there exists such an excessive hyperesthesia that the entrance to the vagina is constricted, the constrictores cunni are the muscles involved in a great majority of cases, but we meet with cases in which not only the constrictores cunni are involved but all the voluntary muscles of the pelvis, and even the idea of an examination sometimes causes the parts to contract so severely as to cause the patient most excruciating pain, simply the idea of a finger or some foreign substance being introduced into the vagina.

Then, too, in many of these cases there exists some local inflammation about the orifice of the vagina. There may exist neuromata, there may be carunculæ of the urethra, there may exist a fissure at the introitus or of the sphincter of the bowel. Where these local conditions exist the vaginismus in many cases may be cured by removing the local lesion. If there are neuromata present, we must cut them out. They will be found lying beneath the mucous membrane of the vagina, and no relief will come until they are removed. If there is a caruncula of the urethra or hyperesthesia affecting the hymen, it is necessary that they shall be removed. It is necessary to so remove the hymen that there shall be

two orfices, the vaginal orifice and the urethral orifice. This is the mode of treatment that is adopted by Winckel. Winckel claims that all cases of vaginismus—true cases—require the hymen to be removed, and that there are organic changes in the structure of the hymen that produce vaginismus. My own experience has led me to believe that there are other conditions of the parts which produce vaginismus, as well as these affections of the hymen proper.

We meet with cases in which there exists no local disturbance. In these cases it has been customary to resort to surgical measures. Dr. Sims was in the habit of making an extensive lateral incision, commencing at the upper portion of the vaginal wall, and extending it down towards the fourchette and into the peritoneum, making a "Y" shaped incision. This is a bloody and severe operation and I can state that in several instances where I felt it necessary to resort to extreme measures, I have succeeded, by extreme dilatation, in overcoming the difficulty.

Placing the patient under the influence of ether, and introducing two or three fingers of each hand into the vagina, the flexor surfaces outward, and pulling the parts so strongly as to produce temporary paralysis of the vaginal muscles. We could even hear the muscles give way. This is the most effectual means that I have resorted to for the relief of vaginismus for which we can find no local cause. Of course, if there exists a fissure of the vagina or bowel, dilatation is the proper thing.

Dr. L. Bremer.—I would like to ask Dr. Bond whether in these cases of vaginismus which he observed there was really a spasm of the constrictor cunni?

Dr. Bond.—That is my impression. There was a spasm of the constrictor cunni. That is the opinion of many men, although I recognized the fact that there are authorities who hold that such a thing does not obtain.

Dr. Bremer.—The constrictor cunni is an extremely harmless and weak constrictor. I believe, that for anatomical reasons, true cases of vaginismus, that is to say, cases arising from spasm following irritation of this muscle are extremely rare. I have of late seen only two cases of what gynecologists call vaginismus. I found in one case that there were so-called neuromata, there were only two neuromata. I cut a piece off of one, examined it microscopically, and made a diagnosis in that way, but after a removal of the neuromata there was no letting up of the symptoms. I could not discover any other neuromata, nor any other tumors. and yet the symptoms persisted in their former intensity. I tried the sphincter cunni and found there was not a bit of contraction, there was simply an hyperesthesia of the vaginal mucous membrane. This case had been treated for a great many years as a case of vaginismus.

Another case that came under my observation also after it had been under the treatment of gynecologists for some seven or eight years, and after all kinds of operative procedures had been undertaken without relief, was one in which I could discover no peripheral lesion at all, in fact, I do not believe that any of the gentlemen who had treated the case before had seen any evidence of pathological peripheral lesion whatsoever; but I discovered that the woman had tabes. What seemed to be peripheral was in fact simply the projection of a central irritation.

I am of the opinion, expressed by our president, that the measures resorted to for the relief of vaginismus are not satisfactory as a rule. If I am not mistaken Emmet expresses his doubt as to the cure of true vaginismus. I believe he admits that he never saw a cure. As a rule it is a constitutional trouble, with the exception of those cases which, perhaps, do not deserve the name of vaginismus, that is to say, where there is only the irritation left after a vaginitis, or after a tumor of some kind, or after a fissure, in fact, where there is any painful and hypersensitive local lesion. As a rule I think we find cases of true vaginismus in the hysterical, in the anemic, and in fact in chlorotic females. What seems to be vaginismus—that is, what seems to be spasms, is nothing but an attempt on the part of the woman to prevent coition on

account of the excessive pain it causes. I found in the two cases I observed that there was something radically wrong in the general nervous system of the patient.

Dr. Bond.—I would like to inquire if they were married women?

Dr. Bremer—Yes sir.

Dr. Bond.—Then might not the irritation have been due to some general nervous seizures?

Dr. Bremer.—Let me explain. One woman was divorced from her husband on account of this infirmity, this defect. When I saw her she had not cohabited with her husband for a number of years. Still this trouble was present and it manifested itself at that time by lascivious dreams at which she felt mortified and by orgasms that took place several times at night which weakened and prostrated her.

The other case, in which there was a tabes, was one that developed after the woman had been married for a number of years, and coition then became impossible, and I believe it became impossible because of this tabetic condition, or lesion of the spinal cord. In the case of the woman who was divorced from her husband, all kinds of treatment had been resorted to, including the use of electricity. I believe that every time she was examined, every time that cocaine was applied, every time the electric current was applied, she got worse, and she was in a perfect state of misery when I saw her. I forbade her the use of animal food. She lived very largely on animal food as neurotics generally do. She shunned milk and farinaceous food. These were not stimulating enough for her, she loved coffee and wine as neurotics do,and she was a woman who had been brought up with very ambitious ways. She had been studying at night, and reading novels at the age of puberty, and it was not surprising that she finally got in the condition that I have described. Her mother managed to get her to take farinaceous food,to leave off the use of meat and in fact all stimulants, and above all to let the vagina alone. I urged her not to touch the vagina and to permit no manipulations for any purpose whatsoever, she is doing fairly well, at least she is in a tolerable state, the difficulty has to a great extent disappeared. I will state that a considerable amelioration of her condition took place when she removed to a colder climate. She is now living in the extreme north of Canada and she has got a long much better and is much more rational and altogether more contented than she had been for the past ten years.

I should like to take exception to an expression used by the gentleman who read the paper as to the specific and non-specific inflammations. By specific inflammation we generally understand a contagious inflammation, one that can be produced by inoculation, and we have been in the habit of denominating gonorrhea and syphilis as specific, but in the present state of our knowledge these names must fall. Inflammations of all sorts are specific. Inflammation of the vagina, whether it is of a benign character or of a gonorrheal character or syphilitic character is specific, because it is due to a specific poison —to a germ.

Dr. A. Green.—In corroboration of the last statement of Dr.Bremer which I fully endorse, I will report a case which came under my observation within the past few weeks. A woman came to me suffering with vaginitis, and although I suggested that she should go to a specialist she requested me to treat the case. I could find no local cause for the trouble except some slight inflammation, so I concluded that it must be due to some germ applied from without. Upon inquiry I learned that her husband is a bucket maker, and of course his hands become dirty during the day and I concluded that this was the source of the irritation. I treated her with local antiseptics to the vagina, and warned her to guard against this source of contagion in the future, and she got well in a short time and remained well.

We know that all inflammations are specific. In the present state of science we know that abscesses are caused by micro-organisms, which after causing some irritation or a lit-

tle obstruction to the circulation in a certain locality of the body, that microbe which has been flowing in the circulation, now localizes where the cirulation has became slower and causes an abscess.

Dr. G. Hurt.—I do not believe that in vaginismus we can adopt any specific line of treatment. The causes which lead to this very unfortunate condition are so numerous, that it is impossible for us to assume that any specific line of treatment will reach them all. In some cases the mere removal of the cause, when we ascertain what that is, is sufficient to effect a cure. I do not know exactly what difference there is between the purport of the term vaginismus and that other term which I believe was coined by Dr. Barnes, of London, dyspareunia. There may be some difference,but theyare both in the line of the same trouble pretty much—sexual incompatibility.

Dr. Bond.—Dyspareunia is the term applied to other spasmodic conditions of the vagina, also to prolapsus of the ovary or inflammatory states of the uterus.

Dr. Hurt.—Any inflammation of the vaginal mucous membrane may be sufficient to exalt a highly nervously developed female into such a condition that sexual congress is impossible, and that amounts to vaginismus. But in some of these cases the cause is quite local and simple and is easily remedied.

I remember a case that lay for some weeks at the hospital, in which it was almost impossible to get a satisfactory examination, but finally she was placed under an anesthetic and a small fissure was found in the constricted vagina. It was cauterized with nitrate of silver,and that was the last of the vaginismus. Is there anything more simple than that? The girl was a prostitute and was sent to the hospital because she was of no use in her vocation.

I believe an hyperesthesia is sometimes the cause of vaginitis, the cause may be local, it may be constitutional or it may be both. I believe there are cases of simple vaginismus and inflammatory vaginismus there is vaginismus complicated with vaginitis. It is possible that an hyperesthesia may be the beginning or the exciting cause or the basis cause of the vaginitis.

Dr. Guhman.—I have never seen any such cases as those which Dr. Bond described where it required surgical interference. All the cases that I have seen were in married ladies, and occurred either after labor or else during the early part of married life. I never saw a case which was not connected with vaginitis. Dr. Hurt thinks hyperesthesia is an exciting cause. I think it is an irritation, In the cases which I described I think the inflammation was the cause of the vaginismus, I think if the vaginitis is cured that the vaginismus will stop. In regard to specific and non-specific inflammation, of course by specific I mean gonorrheal, although I have never seen a case of vaginismus caused by gonorrhea. I think I have only seen four cases of gonorrhea in females, in my life. The treatment of these cases which I described is very simple, and so far as I have heard it is new, that is the use of chloral and zinc in the way that I use them.

SELECTIONS.

OBSTETRIC METHODS IN PRAGUE.

BY HENRY H. MORTON, M.D., BROOKLYN.

During the winter of 1885-86 it was my privilege to live in Professor Breisky's clinic at the Maternity Hospital in Prague, Austria. This institution ranks second in size to the one at Vienna, three thousand births occurring in it annually, one-third of the material being under Professor Breisky's charge at the time of my residence there. Some account of the antiseptic and other methods followed in the hospital may be of general interest.

The first essential in carrying out antisepsis is, of course, the thorough cleansing and disinfection of the hands of physicians and nurses. Before examining a woman in labor, the nails are cut and cleaned, and the hands and arms scrubbed with soap and water and a brush. This is followed by irrigation with

corrosive-sublimate solution, 1 to 1000, and the hands are held in a basin of sublimate solution, 1 to 1000, for a minute or so. Instruments are allowed to remain half an hour in carbolic acid water after being used. Catheters are boiled half an hour in a 5% carbolic acid solution and cleaned internally. The catheters are specially made, the eye being double and going directly through the catheter, and the portion above the eye being filled in with lead, allowing no crevice for the collection of dirt. The external genitals are carefully washed with carbolic acid solution, before the catheter is passed, to remove mucus which might be carried into the bladder before it. Cystitis seldom occurs, and then only when the catheter is not clean. Hypodermic needles are heated in the flame of the gas, and before giving an injection the skin is washed. Small instruments, such as dressing forceps, are also held in the gas flame.

The following antiseptic precautions are adopted with regard to the patients: Upon their entering the hospital and before the first examination is made the vagina is irrigated with corrosive sublimate solution, 1 to 2000. Patients are not irrigated daily unless they have some abnormal secretion, such as leucorrhea. Upon the beginning of labor the vagina is irrigated before the first examination. The irrigation is not repeated during the course of the labor unless a number of students have examined, the patient has fever or hemorrhage, or there is an indication for the use of instruments.

After the birth of the child the external genitals alone are washed, and the vagina is not irrigated in normal cases. When, however, any considerable laceration of its structure has taken place or instruments have been used, irrigation is employed. The uterus is never washed unless it has been operated upon, as in applying the forceps with the child high up, or in perforation or craniotomy.

The uterus is never washed with bichloride, carbolic acid solution being always used in the strength of 3% for prophylaxis, or, when infection is present, 4 to 5%.

After every uterine irrigation two iodoform suppositories are introduced into the uterus. All wounds of the genital passages are sewed up and dressed with iodoform.

After the birth of the child and before the placenta has come away the vulva is covered with a sheet of cotton soaked in chlorine water, which is left till soiled, and then replaced by a fresh one. This is changed every two hours at first, and afterward three times a day. Before the birth the genitals are washed with soap and sublimate solution. During the puerperal state the external genitals are washed with sublimate, but the vagina is not irrigated while the patient is doing well.

Foul-smelling lochia, a discharge two profuse in quantity, and the continuance of blood in the flow for a longer time than normal, are considered indications for irrigating the vagina either with carbolic acid or corrosive sublimate solution. The sublimate is never used when the patient is excessively anemic or is suffering from kidney disease or diarrhea. When the discharge is normal in character but profuse in quantity, an astringent—either alum or acetate of lead—is used as an injection. The uterus is never washed out without an indication, as, for example, if the patient has fever or endometritis, or the membranes or placenta are retained. Carbolic acid solution from 3 to 4% is made use of in such cases.

In examining a patient with septicemia, if, upon the introduction of the speculum, any portion of the vagina are found covered with diphtheritic deposits, the vagina is first irrigated, and then the patches of exudate are touched with tincture of iodine. When everything has been made clean, so that nothing septic can be introduced into the uterus, that organ is examined.

The rooms for puerperal cases, each one containing six beds, are washed once in ten days with soap and water and hypochlorite of lime solution. Woven wire springs are used on the beds, and the mattresses are taken out of doors, beaten and aired. In the lying-in room the beds are changed daily. In septic cases the rooms are washed as usual, and,

in addition, a spray of carbolic acid is used with the atomizer. The bedsteads are put into a room and exposed to a high temperature, the mattresses are beaten and aired,and, if discharges have soaked through the rubber cloth with which each bed is protected, the mattress is burned.

A good deal of weight is laid upon the treatment of the breasts. Upon entering thehospital, each patient has the breast washed daily with borax-water, four per cent., in strength. When a considerable amount of sebaceous secretion is present upon which the dirt has collected, they are rubbed with a four per cent. borated vaseline to soften the deposit, and then treated as above mentioned.

As soon as the child is born, each of its eyes is treated with a drop of two per cent. nitrate of silver solution. The children's mouths are no longer washed, since Professor Epstein, of the Foundling Asylum in Prague, has found that the delicate mucous membrane is apt to be abraded in the washing, and aphthæ form much more readily than upon an unbroken surface. The navels are packed in salicylated cotton, which is changed daily when the child is bathed. Diarrhea and indigestion in newly born children are treated after a plan suggested and used by Professor Epstein. He supposes that the mother's milk, taken into the stomach by the child and not being digested, undergoes decomposition. Bacteria are produced and act as irritants, exciting a catarrhal inflammation, and keeping it up by their presence. The plan of treatment which he used for some years past is to wash out the child's stomach, using a small Jacque's catheter,to which are attached a rubber tube and a funnel. The catheter is passed through the mouth and esophagus into the stomach; the funnel is elevated, and two ounces of plain warm water are poured into the stomach through the funnel, which is then lowered and the water from the stomach siphoned off. This is repeated several times until the water from the stomach comes away clear. Milk or food is forbidden for twenty-four hours, and the child is given albuminated water, made by mixing water and the white of egg, every two hours, the child taking about sixteen ounces in twenty-four hours. This is given on account of the thirst. The stomach washing is not repeated. When the diarrhea is very severe, small doses of acetate of lead are giveu alternately with the albuminated water. Since the adoption of this plan of treatment in this disease the deaths have been much fewer than formerly.

I may here mention incidentally that the administration of ergot as a routine treatment to favor firm contractions of the uterus, was abandoned in 1882. The patients do as well without it as during its employment, hemorrhage being no more frequent.

In conclusion, I would say that the utility of the antiseptic precautions is proved by a comparison of the results before and after their adoption. In the old Maternity Hospital, before antisepsis was used, the mortality was from eight to fifteen in a hundred! In the present institution the entire mortality ranges from four to six deaths in a thousand, and the septic mortality is from two to two and a half in a thousand per annum. I should remark here that this hospital is used for teaching purposes, and each patient is examined by from three to six students in addition to the regular staff. Since the present method of treating breasts was begun, eight hundred and forty women had been confined in the hospital at the time of the writing, and only two cases of mastitis had occurred, both of which were in patients who had no preparatory treatment, having entered the hospital in labor. Cystitis seldom occurs, and it is then usually traced to an improper cleansing of the parts or of the catheter. The frequency of ophthalmia neonatorum has been greatly diminished under the use of nitrate of silver.

I take this opportunity of expressiug my thanks to Professor Breisky and his assistant, Dr. Carl Fleischman, for the many favors extended to me during my sojourn in Prague.—
N. Y. Med. Jour.

A CASE OF THERMIC FEVER.

BY W. G. MACDONALD, M. D., RESIDENT PHYSICIAN IN THE ALBANY HOSPITAL.

Mr. E. D., æt. 50, a widower, native of United States, and by occupation a laborer, was admitted to the hospital June 6, 1888, with the following history: Had been in the hospital three months before for treatment of a sprained ankle. After leaving the hospital he had been unable to secure employment until the morning of illness. Had lived irregularly and drank a good deal. On the morning of June 6, he obtained employment in razing an old building. Noticed nothing unusual, except that he did not perspire during the day. About 5 o'clock P. M., he suddenly became unconscious, and shortly after was seized with clonic spasms. The ambulance brought him to the Albany Hospital immediately.

His condition was as follows: Pulse very small and fast: temperature 109° F. in rectum; respiration 60, shallow and sighing; skin dry and hot, pupils widely dilated; heart's action very irregular; cyanosis marked. Patient in clonic spasms, tossing about and completely unconscious. Sphincters did not relax, nor was there any vomiting. He was given morphia, gr. ¼, with atropia, gr. $^1/_{150}$, and brandy, ʒj, hypodermically; stripped and placed on a water-proof bed, ice-cap put on, and his body rubbed with ice and dashed with ice-water. Brandy repeated freely. The thermometer was removed frequently from the rectum, examined, shaken down and returned. After twenty minutes, temperature had fallen only half degree, when twenty-four ounces of ice-water was thrown into the rectum, and external icing continued. At the expiration of an hour the temperature had fallen 102°. Patient not otherwise improved. Was transferred to a dry bed. Ice-bags to neck and spine continued. Although stimulants had been administered freely, the face and extremities became deeply cyanosed, radial pulse very feeble, heart's action labored and mustard was applied to precordial space. Cut cupping was attempted at right mastoid, but failed, only a few drops of dark semi-fluid blood being withdrawn. Then the basilic vein was opened, and eight ounces of dark semi-coagulated blood withdrawn. Temperature now fell to 100°, pulse and respiration improved. Patient began to swallow brandy and water.

Two hours later temperature again rose to 107.5°, and icing was again resorted to. An enema of antifebrin, gr. xx, was administered.

At midnight, temperature 101°, pulse 120 and of good quality; patient fully conscious; clonic spasm relieved; cyanosis disappeared.

During early morning, several purpuric spots appeared on the limbs, and he had some hemorrhage from the rectum. Morning temperature 99.5°, pulse 90, respirations normal, a slight perspiration.

During forenoon following, patient vomited some curdled milk, and had some diarrhea. Vomiting ceased after changing diet to peptonized milk.

Since then the patient has done well.—*Albany Med. Annals.*

SOME POINTS IN TREATMENT AT THE MEMORIAL HOSPITAL, ORANGE, N. J.

By John H. Bradshaw, M. D.

The following notes are merely brief records of some of the more recent cases and methods of treatment at this institution.

Bisulphite of soda solution is mainly depended upon for the treatment of erysipelas. The usual fifty per cent solution of the shops is diluted with water three times, and is used locally under oiled silk, continuously until all redness of the skin has disappeared.

Cellulitis of the hand has met with a steady check by the continuous, cold, permanganate of potash drip, half a grain to a pint of water.

Fistula in ano has here (after the method inaugurated by Dr. Pierson, in 1876) received a most radical, sharp spoon treatment. All sinuses are laid open, and their diseased walls are dissected or scraped away. The

wound is then united, under strict antisepsis, with sutures. Several extensive multiple fistulæ are recorded as healed by first intention.

Heaton's operation for hernia has not been successful at this hospital; four cases are recorded.

Nerve stretching for sciatica has met with uniform success. Out of seven cases recalled, six were permanent cures, after having been for years treated in vain by almost every conceivable method. The seventh case was discharged improved.

The diachylon ointment of Hebra has proved the best all-round ointment for squamous eczema. It should be made with *olive* oil.

Only selected cases of hemorrhoids are injected. The clamp, scissors and cautery have given best results.

Burns, if extensive, after first being dressed with some protective oil or powder combined with bicarbonate of soda, are, upon the removal of sloughs, actually peppered with skin grafts. The compound resin ointment, with carbolic acid, then serves as a mildly stimulating dressing.

The use of dry powdered boric acid packing for cervical endometritis, erosions and ulcers of the cervix uteri has done away with the glycerine tampons.

Fractures are treated with Levis's splints, Buck's extension, or plaster or silicate of soda immovable splints, as indicated. If of the jaw, the hospital dentists mould a rubber interdental splint. There is an intentional scarcity of fracture apparatus.

Morbus coxerius, if in the first stage, receives a light plaster, or glass spica, high shoe- and crutch. If the child is too young to use crutches, it is kept as much as possible running about in a Darrach wheel crutch (see *Orthopedic Surgery*, Sayre, 2d ed., p. 466.) The suppurative stage receives operative treatment, and rest in cuirass (opus cit., p. 302.) Spinal caries is treated by the support of a Sayre plaster jacket and wheel crutch.

Ulcers of the leg, of whatever variety, are usually first poulticed, if sloughy, and, when clean, a dry powder dressing of bismuth, boric acid (impalpably powdered) or calomel is used under bandage from the toes up, with elevation of the affected extremity. Should granulations be protuberant, they are strapped with the ordinary basket strapping of surgeon's plaster.

A recent case of laparotomy for cystic degeneration of both ovaries was delivered, six weeks before the operation, of a healthy child. Only after her confinement, when her abdomen remained over forty-four inches in girth, was she suspected of having an ovarian tumor. A noteworthy peculiarity about this case was that the umbilicus was protuberant, as is seen in ascites. A double ovariotomy was made, and the patient walked about her room on the fourteenth day.

For all operations which are likely to expose and chill the lower extremities, the legs and thighs are wrapped in cotton batting, and loosely bandaged by the nurse, before the patient is brought to the operating-room.

Hick's vaginal speculum has been found to be all that it claims; it is absolutely self retaining, and gives a wider field for operations upon the cervix uteri than others.

For the last five years Billroth's anesthetic mixture (introduced here by Dr. Simpson: ether, three pints, alcohol and chloroform, each one pint) has been employed for operations. It is thought to be followed by less nausea than is ether, and is decidedly more agreeable to the patient. The average time of anesthesia is eight minutes.

In our lying-in department we recently had a case of empyema in a woman in her ninth month of gestation. The right pleural cavity was aspirated of a little over a quart of pus at each tapping three times successively during the five weeks preceding labor; the last aspiration was made two days before her confinement. She was delivered under careful antiseptic midwifery, and recovered from her labor with no untoward symptoms, although her right pleural cavity was again full of pus on the tenth day. She refused permission to make free drainage openings, and, after

another aspiration, she carried her child away to her own home, where she was lost to observation.

Pleuritic accumulations of serum are almost invariably removed by aspiration; but when not, active counter-irritation and diuretic treatment are practised.

More care is bestowed to make operations aseptic than ever before. Great cleanliness, free use of antiseptic solutions, sterilized instruments, silk, catgut, and wire; the use of boric acid, iodoform, free drainage, sublimated gauze, and indefatigable care and supervision on the part of the head nurse, have made a revolution here as elsewhere. The Lister spray is only used to wash the air of the operating-room before operation. There was recently an abortive attempt to revive the use of the Lister protective. The Mackintosh is still sometimes used when indicated to keep the dressing from becoming too dry.

At the hospital stimulants are given only when indicated, there being no record of their routine use.

Typhoid fever is treated expectantly. In hyperprexia antifebrin in four-grain doses has proved more e&cient and safer than antipyrin.

Pneumonia is treated with the so called pneumonia-jacket (cotton batting under oiled silk), and occasionally poultices are employed. No medicine is given unless demanded by alarming symptoms.

Those of our comsumptives that survived the Bergeon treatment find great relief and sometimes actual benefit from the compound cannabis Indica mixture, introduced here by Dr. J. W. Stickler. Its formula is as follows:

℞.—Tr. cannab. Ind. . ℥ss.
Vironicæ (blue verbena) gr. viijss.
Ext. buchu fl. . . ʒj.
Pulv. verbas. thap. (mullein) gr. xv.
Sacch. alb. . . . ℥j.
Spts. vin. rect. . . ℥jss.
Mel. despumat. . . ℥ij.
Spts. chloroformi, . ʒij.—M.

A teaspoonful of this on going to bed acts as a sedative and anodyne, and is followed by quiet sleep. The dose, one drachm to one-half an ounce, is given during the day, p. r. n., for cough. There are three standard cough mixtures: 1. Expectorant (mur. of amm., as its base). 2. Sedative (hydrobromic acid and chloroform with syrup). 3. Expectorant and tonic (mur. ammon. and digitalis its principal ingredients). We have found a mixture of quinine and alcohol, twenty grains to one pint, of much service as a bathing lotion for night sweats. When this fails we give the "ward sweat mixture," which contains to each dose atrophine one one-hundred-and-twentieth of a grain, morphine one-sixteenth of a grain, acid sulphuric dilute ten minims.

Acute articular rheumatism is treated to best success at first with full doses of salicylate of soda at frequent intervals, followed in convalescence by iodide of potash and ferruginous tonics. Chronic rhenmatism of a gouty history receives iodide of potash or the old Alonzo Clark mixture:

℞.—Vin. colch. sem.,
Soc. et potass. tart.,
Aquæ . aa *partes equales*.—M.
Sig.—one drachm t. i. d.

The histories of our patients are recorded as follows:

We have an initial history sheet, and the usual Memorial Hospital training School daily ward charts. The former contains blank spaces to be filled in on the first day of the patient's arrival by the assistant house physician, under the following printed headings: personal history, hereditary history, "special" (being a record of a woman's uterine history), past illness, past treatment, invasion of present illness, condition on admission, symptoms, physical signs, urine.

This sheet is kept not in the doctor's room or office of the hospital, but must be in the ward as long as the patient remains there. Thus, although there is no resident physician, and the house physician may not be present, the attending physician can review the "initial history" of the patient readily and by the bedside whenever he wishes to call for this sheet. All operative measures are recorded

as soon as performed on the reverse side of the same paper. When the patient is discharged a brief résumé of the case, the condition of the patient on discharge, and the date of the same is written on the reserve side of this same initial history by the house physician with his signature. These sheets are now filed away in numerical order in covers containing lots of one month each. Twelve of these lots, from January to January, are deposited in one drawer of a little cabinet, made for this purpose, and the date belonging to them is painted on the outside. This arrangement is at once convenient and labor saving, and places the histories where they can readily be found. To find a record under this plan the name or the disease only of the case being in mind, the patient's register is first consulted and the number of the case noted, as well as the date of the patient's arrival. Knowing these facts it is a process of a very few moments to find the desired records.—*Med. News.*

CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.

The English Collective Investigation Committee gives (*Brit. Med. Jour.*) the following summary of the result of a careful study and tabulation of something over four thousand cases reported for the purpose of determining the effect of alcohol on the longevity of consumers:

On the whole, then, in addition to the information that we obtain from these returns as to the alcoholic habits of the inhabitants of this country, and as to the relative alcoholic habits of different occupations and classes, we may not unfairly claim to have placed upon a basis of fact the following conclusions:

1. That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.

2. That of men who have passed the age of 25, the strictly temperate, on the average, live at least ten years longer than those who become decidedly intemperate. (We have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.)

3. That in the production of cirrhosis and gout alcoholic excess plays the very marked part which it has long been recognized as doing; and that there is no other disease anything like so distinctly traceable to the effects of alcoholic liquors.

4. That, cirrhosis and gout apart, the effect of alcoholic liquors is rather to predispose the body towards the attacks of disease generally than to induce any special pathological lesion.

5. That in the etiology of chronic renal disease, alcoholic excess, or the gout which it induces, probably plays a special part.

6. That there is no ground for the belief that alcoholic excess leads in any special manner to the development of maligant disease, and some reason to think that it may delay its production.

7. That in the young alcoholic liquors seem rather to check than to induce the formation of the tubercle; while in the old there is some reason to believe that the effects are reversed.

8. That the tendency to apoplexy is not in any special manner induced by alcohol.

9. That the tendency to bronchitis, unless, perhaps, in the young, is not affected in any special manner by alcoholic excess.

10. That the mortality from pneumonia, and probably that from typhoid fever also, is not especially affected by alcoholic habits.

11. That prostatic enlargement and the tendency to cystitis are not especially induced by alcoholic excess.

12. That total abstinence and habitual temperance augment considerably the chance of a death from old age or natural decay, without special pathological lesion.

It is very greatly to be regretted that the returns to this inquiry were not far more numerous than they actually were. The conclusions drawn from the inquiry would have had much more weight had we been able to base them upon an aggregate of ten or twenty thousand cases, instead of four thousand and odd only.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 2. ST. LOUIS, JULY 14, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

REPORT ON DISEASES OF CHILDREN.

BY I. N. LOVE, M. D.

I. THE SUMMER DIARRHEA OF CHILDREN.
II. WHOOPING COUGH. — ANTIPYRIN. — DANGEROUS SHOT GUN PRESCRIPTION.—ANALGESINE.
III. ICTERUS IN INFANCY.
IV. ANTIFEBRIN WITH CHILDREN.

THE SUMMER DIARRHEA OF CHILDREN.

We are now in the midst of the season when this subject presses itself upon us at every turn.

The greatest advance was made in the management of this when it was established that improper food, fermentation, decomposition, ptomaines and bacteria,were the prime source of much of the trouble.

That excessive heat superinduces infants to the development of these intestinal disturbances is unquestioned.

That the improper denial of cold water to the little ones and the consequent aggravation of conditions tending toward insolation is another element provocative of the disease is also true, but a recent paper presented to the St. Louis Medical Society and published in the REVIEW a few weeks ago attributing all cases of cholera infantum to an absence of an abundance of cold water within the babies and the care of all of them effected by the free administration of drink was,to express it gently, extravagant and absurd.

A recent article from the pen of Dr. Dessan, of New York, in the *Med. Standard* for July 1888, presents some very valuable points. He says:

"In the milder form of summer diarrhea in infants which are either partly wet-nursed or artificially fed, ignorance or carelessness allows fermentation to occur in the food, and either germs or ptomaines (the product of germ growth, itself, the result of the heat-action upon food) cause the diarrhea.

In the cases of milk-foods for artificial nursing, it is the partial decomposition which has taken place, favored by heat, that in all likelihood causes abnormal fermentation to be continued in the stomach, with the consequent development of ptomaines, in abundance, poisonous in their action, which produce irritation of the intestinal circulation. It has been demonstrated that diarrhea caused by eating partially decomposed food has been checked by the use of sour milk, or its principal element, lactic acid. This may be explained either by the fact that one species of germ has the property of neutralizing the growth of another, or that an acid medium is unfavorable to their growth.

In these mild cases, the first object is to rid the stomach and intestines of the irritant matter, if there be any probability of its presence. This is best done with either the old-fashioned dose of castor oil, or what is less disgusting and perhaps more efficacious, a dose of calomel combined with sodium bicarbonate. For an infant under 1 year of age, I give 2 grains of calomel and 3 grains of soda; from 1 to 2 years of age, 3 grains of calomel and 5 grains of soda.

Secondly, greater care is urged in the preparation of the food and attention to details, such as keeping the nursing-bottle thoroughly cleansed by scalding it out immediately after using, and keeping it filled (when not in use), with a solution of borax. I prefer the graduated nursing-bottle as it has no tube and

is easier to keep clean. The nipple should be kept in a glass containing the solution of borax. All other utensils used in the care of children should be kept scrupulously clean.

The kind of food is of paramount importance, or otherwise, healthy children, deprived of the breast, or having a scant supply of mother's milk, there is nothing so good as pure cow's milk or some one of its products. Where it can be procured, as in large cities, I prefer the fresh condensed milk, delivered daily, but otherwise unadulterated cow's milk will answer. Where there are previous digestive disturbances, the "malted milk" appears to be the best artificial food for infants.

In many cases, further therapeutic measures will hardly be needed, but if there be indications for such, I give a combination of calomel, or mercury with chalk, and bismuth subcarbonate or subnitrate, either in powder or mucilage of tragacanth. My object is to restore the normal intestinal circulation by inviting the excess of blood to the liver, which is the principal compensating organ in the arrangement, and to check further irritation from the products of germ growth by the antiseptic action of the bismuth.

In the several forms of summer diarrhea in children, depending partly upon the effect of heat as already shown in the decomposition of food and furthermore upon foul air from filth fermentation, and in a large degree, upon the direct depressing effect upon the cerebro-spinal nerve centers of prolonged heat above a certain degree, (more especially where this atmospheric condition obtains during the night) my chief aim is to overcome the exhausted state of the nerve centers, either by the use of cold baths, cold enemata, the hypodermic use of stimulants, as camphor, brandy, quinine in small doses, or chloral hydrate where there is a collapse as in cholera infantum. Cold baths at a temperature of 60° F., are given where the body temperature as indicated by the thermometer is above 104° F. The bath is not continued for more than five minutes, and rather less if there be a tendency to cutaneous congestion. The body is rapidly dried with friction from a coarse towel and afterward enveloped in a blanket to invite reaction. Cold drinks are given if there be much thirst, even if they are again vomited. For infants, under a year, iced toast-water is preferable. If the symptoms be severe, I prohibit the use of all food other than the toast-water, barley-water or albumen-water as may seem preferable, until amelioration has resulted. These are all given cold with cracked ice. Afterward, it is better to begin feeding with either koumiss, kefir or matzoon; all of which preparations of fermented milk contain alcohol and carbonic acid gas.

In giving hypodermic injections I select the buttocks as the most eligible point of insertion. I use one grain of quinine or cinchonidine hydrobromide in solution, repeated once daily, as often as the body temperature rises above 103° F., one to three drops of camphorated oil, and five to ten drops of a 10 per cent solution of chloral hydrate. The hypodermics of chloral are used only in the severest cases of cholera infantum where there is marked and rapid collapse. It need not be repeated oftener than once or twice at hourly intervals.

If the diarrhea be not attended with a high temperature nor other symptoms of heat prostration, but if severe, I employ some one of the internal antiseptic remedies, as sodium salicylate, bismuth salicylate, naphthalin, or carbolic acid; always clearing the bowels first with calomel and soda. Perhaps the best internal antiseptic if it be such, in my experience, in the treatment of the summer diarrhea of children, is corrosive sublimate. Especially is this true, if the large intestine be deeply involved, even to the extent of dysentery. Its best effects are obtained from the 1-100 to 1-200 of a grain, repeated every two hours.

In the stage of reaction from the severer forms of summer diarrhea in infants, or what is knwon in the books as hydrocephaloid disease, where there is great restlessness due to cerebral anemia, I give the potassio-tartrate of iron as the best ferruginous tonic, and keep the head covered with hot water applications.

Diffusible stimulants are given at the same time. Small quantities of chloral are carefully given to allay nervous irritation, until the blood has become enriched with more corpuscles from the action of the iron.

Fresh air, preferably sea air, is advised on all occasions, and in the younger class of infants all shaking up in handling is strenuously forbidden, as the utmost quiet is all important.

Whooping Cough.

In a previous report a reference was made to the use of antipyrin in whooping cough, by the writer based upon its previous use in asthma, as recommended by Germain See, of Paris. As confirmatory evidence I quote the following from the July number of the *Amer. Jour. Med. Sci.*, viz:

"Dr. Dubousquet-Labordiere finds that antipyrin is an efficient remedy for whooping cough (*Revue Gen. de Therapeutique*, May 15, 1888). He concludes a clinical paper on this topic with the following:

1. Children take antipyrin without difficulty, and they easily bear its effects as a rule.

2. The spasmodic condition is rapidly calmed, and in a few days the disease declines.

3. Its action is so prompt and so free from accidents, that it becomes a valuable remedy for a malady which may be very prolonged in duration, and have many complications."

While endorsing in the main, the above propositions, I think antipyrin should be given cautiously and watchfully to all patients, children as well as adults.

In this connection it may be well to recall the readers mind to the fact that has been announced that this drug combined with sweet spirits of nitre forms a dangerous mixture.

A case occurred in this city a few weeks ago where dangerous symptoms occurred which were believed to be due to the administration of this mixture. Upon this subject the *Amer. Drug.*, April, 1888, says: The following prescription was presented to a friend of one of our correspondents:

℞	Antipyrini . . .	gr. 15
	Spir. æther. nit. . . .	fl. ʒ 2
	Tr. aconit. rad. . .	gtt. 8
	Syr. lactucarii . .	fl. ℥ 2

M. et signa: Dose: One teaspoonful.

This prescription was prepared, and produced a green solution, and one teaspoonful was given to a patient, a little boy of five years of age, and who was not by any means sick or confined to his bed, but seemed to be ailing with a little fever. After taking the first teaspoonful, the child was thrown into convulsions, and died in about two hours.

In explanation of the reaction taking place between antipyrin and spirits of nitrous ether, we would state that the incompatibility of the former with nitrous acid or nitrites, in presence of acids, has long been known. In fact, the reaction has been used as a test for nitrous acid as well as for antipyrin.

In dilute solutions containing nitrous acid, antipyrin causes a bluish-green coloration. In concentrated solutions it produces a precipitate of bluish-green crystals, consisting of *iso nitroso antipyrin.*

Now, it is well known that nitrites in general are active poisons. Even small doses of an alkali nitrate, for instance nitrite of potassium or sodium, say five to eight grains, produce a throbbing and a sensation of bursting in the head, with vertigo, eructations, nausea and vomiting, cyanosis, and often convulsions. Free nitrous acid is still more energetic, even in very small quantities. The new substance produced by the reaction between antipyrin and spirit of nitrous ether appears to belong to that class of bodies in which the effect of the presence of an active radical is greatly intensified. Yet neutral nitrites do not produce the above mentioned reaction with antipyrin. It is neceesary that the nitrous acid be in a free state. If this is the case, the bluish-green or pale green color will appear on the addition of a solution of antipyrin. When this color is once developed, it is not destroyed or removed by the addition of an alkali. But if the free nitrous acid is first

neutralized with an alkali, the addition of antipyrin will fail to produce any color reaction.

The prescription quoted is objectionable in addition on account of the presence of tincture of aconite.

Antipyrin and aconite being depressant should not be given together.

The entire combination is an argument against the shot-gun prescription.

The intelligent and safe plan is to individualize in the application of remedies.

It is to be regretted that antipyrin comes under the head of patent medicines. The name was patented by Dr. Knorr, but the process of manufacture is well known, and it has been suggested that the same drug may be made and sold under the name "Analgesine".

In harmony with this idea with this idea the "*Chemist and Druggist*" of May 5, 1888, says:

Antipyrin is hereafter to be known and dispensed by the Central Pharmacy and all the Paris hospitals under the name "analgesine." At a recent meeting of the Academy of Medicine of Paris, Professor Bourgoin announced this fact, and expressed the hope that all physicians in civil practice would follow the example to thwart an oppressive monopoly- His remarks were greeted with great applause. This action is in accordance with a decision of the director of the Paris *Assistance Publique*, that henceforth prescriptions calling for antipyrine shall be filled by the Hospital's Central Pharmacy with analgesine or dimethyloxyquinizine.

Icterus in Infancy.

It has been the observation of all physicians no doubt that the new born child is prone to jaundice, that there is more or less engorgement of all secretory glands.

I doubt if sufficient attention is given to to the arousing of secretions in the young infant.

Regarding infantile icterus Dr. A. Jacobi says in the *Archives of Pediatrics*.

"A certain degree of yellowish discoloration of the skin is the result of the normal changes of hematin deposited in the skin during the rapid transition from fetal to post natal circulation. When by retarded separation of the newly-born from the mother, and compression of the placenta, the amount of blood in the circulation of the infant is unduly increased, this form of hematogene jaundice is rather more developed. The simplest form of hepatogene icterus is produced by the sudden diminution of the blood circulating in the vessels of the liver, which encourages the exosmotic transition of bile into the adjoining blood-vessels. All of these forms of jaundice require no treatment. Duodenal catarrh will produce icterus in the newly-born, as it does in advanced age. Thus the feeding and the digestion of the baby must be carefully watched. The routine administration of syrup of rhubarb is a mistake on the part of the female busybodies, which must be discouraged. Maybe some of them can be taught that acid cow's milk and indiscriminate feeding in general, and exposure, tight bandaging, and cold feet, can do still more harm than their medicine. Icterus resulting from congenital obliteration of the large biliary ducts, or congenital cirrhosis, or acute fatty degeneration, or epidemic hemoglobinuria is incurable. Icterus during septic infection is a bad symptom, and rarely terminates otherwise than in death. Icterus depending on congenital syphilis of the liver is grave, but I have met with several cases which recovered. A thorough and energetic antisyphilitic treatment is in such cases the only safeguard. It may prove unsuccessful, however, because the syphilitic process of the connective tissive is not coufined to the liver, but extends to the rest of the organs. Mercury must be administered for a long time, a twentieth or a twelfth of a grain of calomel three times a day; careful inunction of a scruple of blue ointment daily, or one thirtieth of a grain of corrosive sublimate in a one-fifth of a per cent. solution of distilled water for subcutaneous injection daily. In the beginning of the treatment two of these medica-

tions may be combined, or one of these together with the internal administration of from three to five grains of iodide of potassium. The internal administration of the bichloride of mercury is also well tolerated; one hundredth of a grain may be given in a teaspoonful of water, or food, every two or four hours, and continued many weeks."

[I have made it the rule for a number of years to administer to every child immediately after birth the $^1/_{12}$ of a grain of mild chloride three times daily for a week or ten days. Activity of secretion is secured, and I am sure a more prompt digestion and assimilation of food results].

Antifebrin with Children.

For some months I have been using antifebrin almost exclusively in clildren where previously I had given antipyrin. I am thoroughly satisfied that in it we have a drug which is to be preferred to the latter. The dose is from one to three or four grains for a child from one to ten years, to be given any one, two or three hours as may be necessary. The following makes an agreeable mixture; viz:

Antifebrin . .	gr. xvi
Alcohol . . .	℥i
Glycerine	ʒiii
Aquæ cimmamon . .	ʒvi

M. Sig. From one half to two teaspoonfuls every two to four hours according to age.

ORIGINAL ARTICLES.

THERAPEUTICS OF DIPHTHERIA.

BY DR. A. JACOBI.

Read before the Philadelphia County Medical Society.

Mr. President: When I considered the subject which is to be the topic of your deliberations this evening, and remembered the vastness of its literature, it became clear to my mind that a digest, ever so small, of what has been written, would fill more than many evenings, and still fall short of accomplishing the object in view. I was aware that I must not come here with literature. You will excuse me, therefore, for only detailing in plain language some of the facts gathered in my contact with diphtheria, these thirty years, and the therapeutical measures which I have learned to appreciate and to practice. Thus I shall not touch upon the large number of panaceas which have ascended like rockets and never were seen again.

Diphtheria is a contagious disease. Severe forms may beget severe or mild forms. Mild cases may beget mild or severe cases. There is probably no spontaneous origin of diphtheria, any more than there is a spontaneous origin of cholera or scarlatina. What has been called follicular amygdalitis (or "tonsillitis") is diphtheria in many, perhaps most, instances. It is seldom dangerous to the patient, because the tonsils have but very little lymph communication with the rest of the body. But the diphtheritic variety of follicular amygdalitis also is contagious. This mild variety is that from which adults are apt to suffer. It made me proclaim the warning that there is as much diphtheria out of doors as there is in doors; as much out of bed as in bed. With this variety the adult is in the street, in business, in the school-room, in the railroad car, in the kitchen and nursery. With this variety, parents while complaining of a slightly sore throat, kiss their children. Wherever it is suspected, it ought to be looked after. Where it is seen it ought to be isolated and treated, less perhaps for the sake of those who are sick, than of those who are in serious danger of being infected. This is the more necessary, as this form is apt to last long and give rise to repeated attacks. But it is not only the mild variety which is liable to last long. Serious, undoubted cases are also apt to last for weeks, and some of them months. As long as they do persist they are contagious.

These reminiscences and quotations from former writings must justify the pre-eminent place I claim for preventive treatment.

Those sick with diphtheria, severe or mild,

must be isolated. If barely possible, the other children ought to be removed from the house. This can but rarely be done in the houses of the poor, in the densely populated districts. A great charity is still waiting for its consummation, viz., that of erecting buildings, dormitories, and playrooms for those who ought to be temporarily exiled from their infected homes. A suggestion of mine, before the New York State Medical Society in its meeting of 1882, resulted in the erection of the Willard Parker Hospital of New York, for the benefit of those suffering from scarlatina and diphtheria. The erection of a sufficient number of temporary homes wuold be a still greater blessing to the poor, and a greater protection to the public at large. If it be impossible to send the well children away, let them remain outside the house, in the air, as long as feasible, and with open bedroom windows during the night, in the most distant part of the house; during the winter in a lower floor. Their throats must be examined every day, and their rectal temperatures taken by the mother, so that the physician may be called on the occurrence of but slight changes. The few minutes spent in this way are amply repaid by the safety they may accomplish. The attendants upon cases of diphtheria must have no intercourse with the well children; though a brief visit of the physician may not render him sick, or dangerous to others, a long exposure affects him or a nurse to a greater or less degree.

When an attack of diphtheria has made its appearance, it is well enough to examine the hygienic condition of the house with its deteriorating influences on the general health of the inmates, and to look after the source of the case in the persons of friends, attendants, and help. A family with children ought to insist upon the occasional inspection of the throats of their servants; those with chronic pharyngeal catarrh must not be hired. A seamstress or laundress coming for an occasional day's work, sick nurses, children's nurses, and cooks, ought to be examined from time to time, the more so, the more such people are inclined to conceal slight troubles, for obvious reasons. The opportunities for infection are so numerous that it is impossible to sail absolutely free from it. It is easy to imagine how many cases of diphtheria are liable to be disseminated by teachers, shopkeepers, restaurants, barbers, and hairdressers.

In times of an epidemic, every public place, theatre, ball-room, dining-hall, and tavern ought to be treated like a hospital. Where there is a large conflux of people there are certainly many who carry the disease. Disinfection ought to be enforced in regular intervals. In this respect I can but repeat what I said in my treatise (p. 172) and Pepper's *Cyclopædia* (I. 697). Public vehicles must be treated in the same manner after a suspicious case has been carried; that it should be so when a case of small-pox has happened to be conveyed in them, appears quite natural. Livery stable keepers who would be anxious to destroy the germ of small-pox in their coaches, must learn that diphtheria is as dangerous a passenger as variola, and what is correct in the case of a poor hack, is more so in a railroad car, whether emigrant or Pullman. I have seen many cases coming to and leaving the city in them. They ought to be thoroughly disinfected in times of an epidemic at regular intervals, for the highroads of travel have always been those of epidemic diseases. Still, can that be accomplished? Will not railroad companies resist a plan of regular disinfections, because of their expensiveness? Will there not be an outcry against this despotic violation of the rights of the citizen, the independence of the money bag? Certainly there will be, exactly as there was when municipal authority commenced to compel parent to keep their children from school when they had contagious diseases in their families, and when small-pox patients were arrested because of their endangering the passengers in a public vehicle, or taken to a fever hospital for the protection of their neighbors. In such cases it is not society, or the State, that tyrannizes the individual, it is the individual that endangers society.

To what extent the infecting substance may cling to surroundings, is best shown by the cases of diphtheria springing up in premises which had not seen diphtheria for a long time, but had not been interfered with; and best, perhaps, by a series of observations of auto-infection. When a diphtheritic case has been in a room for some time, the room, bedding, curtains, and carpets are infected. The child is getting better, has a new attack, may again improve, and is again stricken down. Thus I have seen them die; but also improve immediately after being removed from that room or house. If barely possible, a child with diphtheria ought to change its room and bed every few days.

To other rules of protection and disinfection, both private and public, including the prohibition of public funerals, I allude, only for the purpose of referring to the admirable rules published in its bulletin No. 10, of September 6, 1879, by the National Board of Health, and copied in my treatise on diphtheria, New York, 1880, and my article on diphtheria in Pepper's "System of Practical Medicine, vol. i. p. 698.

Prevention can accomplish a great deal for the individual. Diphtheria will, as a rule, not attack a healthy integument, be this cutis or mucous membrane. The best preventive is, therefore, to keep the mucous membrane in a healthy condition. Catarrh of the mouth, pharynx, and nose must be treated in time. Many a chronic nasal catarrh, with big glands round the neck,requires sometimes but two or three regular salt-water injections (1:130) into the nose, and gargling if the children are large enough to do so. The addition of one per cent. of alum will often be found useful. This treatment, however,must be continued for many months, and may require years. Still there is no hardship in it, and no excuse for its omission. The nasal spray of a solution of nitrate of silver, 1:500 or 1,000, will accelerate the cure, and not infrequently has a treatment which was considered obsolete when I was young, been of great service to me. It consists in the internal administration of the tincture of pimpinella saxifraga. It is certainly an efficient remedy in subacute and chronic pharyngitis and laryngitis. I generally give it to adults, diluted with equal parts of glycerine and water, a teaspoonful of the mixture every two or three hours, with the proviso that no water must be taken soon after.

Large tonsils must be resected in times when there is no diphtheria. During an epidemic every wound in the mouth is liable to become diphtheritic within a day, and such operations ought to be postponed if feasible. The scooping of the tonsils, for whatever cause, I have given up since I became better acquainted with the use, under cocaine, of the galvanocautery. From one to four applications to each side, or to the post-nasal space, are usually sufficient for every case of enlarged tonsils or lacunar amygdalitis. It is advisable to cauterize but one side at a time, to avoid inconvenience in swallowing afterward, and to burn from the surface inward. Cauterization of the centre of the tonsils may result in swelling, pain and suppuration, unless the cautery is carried entirely to the surface; that means to say the scurf must be on, or extend to the surface. Another precaution is to apply the burner cold, and heat it in *in situ.*

Nasal catarrh and proliferation of the mucous and submucous tissue may require the same treatment, but in my experience the cases which require it are less frequent than those in which the tonsils need correction.

The presence of glandular swelling round the neck must not be tolerated. They, and the oral and mucous membranes, affect each other mutually. Most of them could be avoided, if every eczema of the head and face, every stomatitis and rhinitis resulting from uncleanliness, combustion, injury, or whatever cause, were relieved at once. A careful supervision of that kind would prevent many a case of diphtheria, glandular suppuration, deformity, or phthisis.

For its salutary effect on the mucous membrane of the mouth, chlorate of potassium, or sodium, which is still claimed by some to be a specific, or almost so, is counted by me

amongst the preventive remedies. If it be anything more, it is in a case of diphtheria an adjuvant. It exhibits its best effects in the catarrhal and ulcerous condition of the oral cavity. In diphtheria it keeps the mucous membrane in a healthy condition, or restores it to health. Thus it prevents the diphtheritic process from spreading.

Diphtheria is seldom observed on healthy, or apparently healthy tissue. The pseudomembrane is mostly surrounded by a sore,hyperemic, edematous mucous membrane. Indeed, this hyperemia precedes the appearance of the diphtheritic exudation in almost every case. The exceptions to this rule consist of those cases in which the virus may take root in the interstices between the normal tonsillar epithelia, pointed out by Stoehr but a few years ago. Indeed, many cases of throat disease occurring during the prevalence of an epidemic of diphtheria, are but those of pharyngitis which under favorable circumstances may develop into diphtheria. These throat diseases are so very frequent during the reign of an epidemic, that in my first paper on diphtheria (August 11, and 18, 1860, *Amer. Med. Times*) I based my reasoning on 200 cases of genuine diphtheria, and 185 of pharyngitis, without a visible membrane.

These cases of pharyngitis, and such of stomatitis and pharyngitis accompanying the presence of membranes, are benefited by the local and general effect of chlorate of potassium. The surrounding parts being healthy or returning to health, the membrane remains circumscribed. The generally benign character of purely tonsillar diphtheria, which is apt to run its full course in from four to six days, has in this manner contributed to secure to chlorate of potassium the reputation of being already, the, remedy in diphtheria. The dose of the salt must not be larger than 15 grains (1 gramme) for an infant a year old, not over 20 or 30 (1.5—2.0) for a child from three to five years, in the twenty-four hours. An adult must not take more than 1½ drachms (6 grammes) daily. These amounts must not be given in a few large doses, but in repeated doses and short intervals. A solution of one part in sixty will allow a teaspoonful every hour, or half a teaspoonful every half hour in the case of a baby one or two years old.

It is not too late yet to raise a warning voice against the use of larger doses. Simple truths in practical medicine do more than simply bear repetition, they require it. For though the cases of actual chlorate of potassium poisoning are no longer isolated, and ought to be generally known, fatal accidents will still occur even in the practice of physicians. When I experimented on myself, with half ounce doses, thirty years ago, the results were some gastric,and intense renal,irritation. The same were experienced by Fountain, of Davenport, Iowa, whose death from an ounce of the salt has been impressively described in Alfred Stillé's "Materia Medica," from which I have quoted it in my treatise on diphtheria. His death from chlorate of potassium induced me to prohibit large doses as early as 1860. In my contribution to Gerhardt's "Handbuch der Kinderkrankheiten," vol. ii., 1877, I could speak of a series of cases known to me personally. In a paper read before the Medical Society of the State of New York in 1879 (*Med. Rec.* March 15), I treated of the subject monographically, and alluded to the dangers attending the promiscuous use of the drug, which has descended into the ranks of domestic remedies; and, finally, in my treatise (New York, 1880) I collected all my cases, and the few then recorded by others. Since that time the recorded cases have become quite numerous, and but a few days ago a few new ones were related before the Practitioners' Society of New York. The facts are undoubted, though the explanations may differ. The probability is that death occurs from methemoglobinuria produced by the presence of the poison in the blood; though Stockvis, of Amsterdam, has tried, by a long series of experiments, to fortify my original assumption that the fatal issue was due to acute nephritis.

The attempt at forming indications for the treatment of patients with diphtheria—I refuse to say treatment *of* diphtheria—based upon the preconceived or acquired idea as to

the nature and causes of diphtheria, are all futile. We know that many cases are undoubtedly of local origin; but there are those in which we require no other proof for its original infectious character than the fact that there is a period of incubation. But all that is indifferent, in view of the fact that the cases we are called upon to treat are, as a rule, or have become, both local and constitutional. It is these we have mostly to deal with.

There is no better proof of the non-existence of a specific in diphtheria than the fact that the pharmacopœia has been exhausted to find one, and new remedies, legitimate and illegitimate, are being recommended all the time as panaceas. While there are certain indications resulting from the characteristics common to all, every case must be treated on general principles, which must be applied to the prominent individual features. When there is a high temperature in the beginning, it requires all the tact of a good physician to judge of the advisability of reducing it by antifebriles, such as sponging, warm bathing, cold bathing, antipyrin, antifebrin, or the subcutaneous use of the carbamide of quinia. Convulsions may demand active treatment, such as chloroform inhalations, or chloral hydrate internally or in the rectum. Vomiting, or other cerebral symptoms, may ask for liquids, or smaller or larger doses of opiates. A very quick and feeble pulse may require a few large doses of a heart stimulant, digitalis, strophanthus, or spartein in the very beginning.

Renal complications are frequent and occur at an early time. The majority of cases terminate favorably, in some a large amount of albumen will be eliminated in the course of a few days and disappear shortly. But whether your individual case will be of that nature, you do not know, and in time of danger nothing must be taken for granted. Milk or farinaceous diet, plenty of water, or, better Poland, Bethesda, Seltzer, Apollinaris, or Vichy, warm bathing, warm feet, a few good doses of calomel, a number of hourly or two hourly small doses of opium which are better than those of digitalis, and nitro-glycerine, will often prove beneficial. If a diffuse nephritis, such as is more frequently met with in scarlatina, be the result, it impairs the prognosis and requires further treatment conducted on general principles.

To what extent local treatment, if it be possible to employ it, is effective, can best be seen on external diphtheritic surfaces, thus the cutis denuded by vesicatories, the inguinal regions sore with intertrigo, the vagina, circumcision wounds, or tracheal incisions. I have tried almost everything which has been recommended for these conditions, but am most pleased with the effect of iodol, or iodoform powdered, or one part with eight or ten of vaseline. Powders of subnitrate of bismuth, boric acid, or salicylic acid with fifteen or twenty-five its quantity of starch have not given me the same satisfaction.

The treatment of diphtheritic conjunctivitis requires also nothing but local treatment. It consists in the application of small ice-bags, or iced cloths which must be changed every few minutes, and the frequent instillation of a saturated solution of boric acid, with or without atropia.

The local treatment of the pseudo-membranes of the fauces is a subject of great importance. To look upon them as an excretion which needs no interference, is incorrect. If it were possible to remove or destroy them, it would be a great comfort; but they can be reached only in certain places, and just in those in which they do least harm. Pseudo-membranes on the tonsils are the least dangerous, for their lymph communication with the rest of the body is very scanty. Thus almost all forms of tonsillar diphtheria are amongst the most benign, at least as long as the process does not extend. Most cases of the kind run their mild course in from five to seven days, and it is just these which have given rise to the many proposals of tearing, scratching, cauterizing, swabbing, brushing, and burning. There are cases which do not show the harm done. The fact is that neither the galvano-cautery nor carbolic acid, nor tannin and glycerine, nor perchloride or subsulphate of iron can be applied with leisure

aud accuracy to the very membrane alone except in the cases of very docile and very patient children. In almost every case the surrounding epithelium is getting scratched off or changed, and thus the diphtheritic deposit will spread. Besides, the membrane of the tonsil is changed surface tissue, as it always is wherever the epithelium is pavement, and not deposited upon the mucous membranes from which it might be easily detached. Whatever is done must be accomplished without violence of any kind. If nasal injections be found advisable they can be made to wash the posterior pharynx and the tonsils sufficiently, so as to render the special treatment directed to the throat absolutely useless. Besides, it is easier, and meets with less objection, and gives rise to less exhaustion than the forcible opening of the mouth. This is of very great importance, as I shall show in connection with the local treatment of the nasal cavity. Where it is possible to make local applications without difficulty, the membrane may be brushed with tincture of iodine several times daily, or a drop of rather concentrated carbolic acid. Of powders I know only one, the application of which is not contraindicated, viz., calomel. Even this may irritate by its very form. Everything dry irritates and gives rise to cough or discomfort. Whatever has, besides, a bad taste or odor, such as sulphur, iodoform or quinia, must be abhorred.

For the purpose of dissolving membranes, papayotin or papain, has been employed. It is soluble in twenty parts of water, and may be injected, sprayed, or brushed on. I have used it in greater concentration, in two or four parts of water and glycerine, in the nose, throat and through the tracheotomy tube, in the trachea. One of the irrepressible drug manufacturers and advertisers pushes the claims of some modification of the drug, which he calls papoid. For the same purpose trypsin is preferred by others. The mode of its application appears to be the reverse of indifferent. But lately I have seen in the practice of one of our best known practitioners, papayotin applied in powder, which resulted in constant irritation of the throat while the patient otherwise was convalescent. The pharyngeal hyperemia and slight exudation disappeared when mild alum washes were substituted.

Steam.—Its inhalation is useful in catarrh of the mucous membranes, and in many inflammatory and diphtheritic affections. On mucous membranes it will increase the secretion and liquefy it, and thus aid in the throwing off of the pseudo-membranes. Its action is the more pronounced the greater the amount of muciparous follicles under or alongside a cylindrical or fimbriated epithelium. Thus it is that tracheo-bronchial diphtheria, so-called fibrinous bronchitis, is greatly benefited by it. Children affected with it I have kept in small bath-rooms for days, turning on the hot water, and obliging the patient constantly to breathe the hot clouds. Several such cases I have seen recover with that treatment. Atomized *cold* water will never yield the same result. Nor have I seen the patent inhalers do much good.

Still, where the surface epithelium is pavement rather than cylindrical, and but few muciparous follicles are present, and the pseudo membrane is rather immerged in and firmly coherent with, the surface—for instance on the tonsils and the vocal cords—the steam treatment is less appropriate. On the contrary, moist heat is liable in such cases to favor the extension of the process by softening the hitherto healthy mucous membrane. Thus it takes all the tact of the practitioner to select the proper cases for the administration of steam, not to speak of the judgment that is required to determine to what extent the expulsion of air from the steam moistened room or tent is permissible.

Steam can be properly mixed with medical vapors. In the room of the patient water is kept boiling constantly, over the fire place, provided the steam is prevented from escaping directly into the chimney, on a stove (the modern self-feeders are insufficient for that purpose and abominations for every reason), over an alcohol lamp if we cannot do

better, not on gas if possible, because of the large amount of oxygen it consumes. Every hour a tablespoonful of oleum terebinthinæ, and perhaps also a tablespoonful of carbolic acid is poured on the water and evaporated. The air is filled with steam and vapors, and the contact with the sore surfaces and the respiratory tract is obtained with absolute certainty.

Diphtheria of the nose is apt to terminate fatally unless energetic treatment is commenced at once. This consists in persevering disinfection of the mucous surface. The disinfecting procedure must not be omitted long because of the general sepsis resulting from rapid absorption from the surface which is supplied with lymph ducts, and small superficial blood-vessels to an unusual extent. Disinfectant injections must be continued every hour, for 1 or more days. If they are well made, the consecutive adenitis, particularly that about the angle of the lower jaw, is soon relieved, and the general condition improved. But there are cases in which not the lymph bodies are the main gates through which the constitutional poisoning takes place, but the blood-vessels only. In the incipient stage of such cases the discharge from the nostrils is more or less sanguineous; in them the blood-vessels, thin and fragile, carry the poison inward with great rapidity.

In a few cases injections are unsuccessful. They are those in which the whole nasal cavity is filled with membranous deposits to such an extent as to require forcible treatment. Sometimes it is difficult to push a silver probe through it. That procedure may be repeated, the probe dipped in carbolic acid, or wrapped in absorbent cotton moistened with carbolic acid of 50 or 90 per cent. After a while injections alone will suffice. But now and then the development of the pseudo-membranes is very rapid, a few hours suffice to block the nostrils again, and the difficulty is the same.

The liquids which are to be injected must be warm and fairly mild. Solutions of chloride of sodium, two-thirds of one per cent, saturated solutions of boric acid, one part of bichloride of mercury, 35 of chloride of sodium and 5000 of water, more or less, or lime water, or solutions of papayotin, will be found satisfactory. From the selection of these remedies it is at once apparent that the object in view is partly that of washing out, and partly of disinfecting. I have not mentioned carbolic acid, which may be used in solutionsof one per cent or less. Its employment requires care, for much of the injected fluid is swallowed, and proves a danger to children of any age, but mostly to the young.

Most of the syringes I find in my rounds are abominations. The nozzle must be large, blunt and soft. After having recommended for many years the common hard rubber ear syringe the sharp end of which was cut off, I now use always a short stout glass syringe with soft rubber mounting in front.

When the children cannot or must not be raised, I employ the same solutions from a a spoon, or a plain Davidson atomizer. These applications can thus be made while the children are lying down, every hour or very much oftener, without any or much annoyance. The nozzle must be large so as to fit the nostril. A single spray on each side will generally suffice. I am in the habit of covering the common nozzle with a short piece of India rubber tubing.

For a day or two these injections of fluids or spray must be made hourly. It is not cruel to wake the children out of their septic drowsiness; it is certain death not to do it.

Injections of the nose are oftener ordered than judiciously made. Hundreds of times have I been assured that they had been made regularly, hourly, for days in succession. Still there was a steady increase of glandular swelling and sepsis. I never believe a nurse to have made them regularly unless I have seen her doing it. They will run up their syringe vertically and not horizontally, the fluid will return through the same nostril. On the successful injecting or spraying of the nares hangs every life in a case of nasal diphtheria. I have long learned to look upon a neglect to tell at every visit how to make an injection as a dereliction of duty. This may appear a trifling way, but it is a safe one.

The nurse must be made to tell you that at every injection the fluid returns through the other nostril, or through the mouth, or is swallowed.

The procedure is simple enough, and need not take more than half a minute for both nostrils. A towel is thrown over the child's chest up to the chin and the child gently raised in bed by the person who is to make the injection. This person sitting on the bed steadies the patient's head against her chest while somebody else holds the patient's hands. The syringe is introduced horizontally by the person sitting behind the patient and gently emptied. No time must be lost in refilling and attending to the other side. When pain is complained of in the ears more gentleness is required, or the spray, or pouring in from the spoon, or minim dropper even, has to take the place of the injection.

Many sins are committed in even doing this simple thing. The unfortunate little one is made to see all the preparations,and is worried and excited, and the necessary gentleness in the proceedings is neglected.

Which is the concentration in which antiseptic injections should be used? For twenty-five years and more, while employing irrigations and injections frequently, I had used quite weak solutions and felt assured of their efficacy. All at once (when the gospel of the bacteria was being preached) it was claimed that weak solutions were useless and a snare, because antiseptics, and particularly carbolic acid, would not destroy bacteria and and bacteria poisons except in such doses and concentrations as would necessarily destroy blood and tissues first. I felt dismayed, but still continued in my heretic ways, hoping that improved knowledge would finally harmonize theory and practice. So it happened. In the *Amer. Jour. of the Med. Sci.* for January, 1881, T. Mitchell Prudden proved that a solution of one-sixteenth of one per cent of carbolic acid prevents the emigration of white blood corpuscles under circumstances otherwise favorable to inflammation, and Koch found that though bacteria are not easily killed, their growth is stopped by a solution of one part of carbolic acid in 850, and their activity by one in 1200. These effects are all that is required for practical purposes; thus the frequency of applications is justified by both necessity and safety.

Besides sepsis, the great dangers in diphtheria are heart failure and strangulation. The latter has its own indication to which I shall not allude to-day. Heart failure exhibits itself sometimes quite suddenly, but, as a rule, it is foreshadowed by a gradually increasing frequency, weakness of heart-beats and pulse and the equal length of the intervals between the feeble systole and diastole, and diastole and systole. This equality is always a dangerous symptom. Heart failure is due, besides the influences common to every disease and every fever, to myocardial changes. These may depend on the influence of the septic decomposition of the blood, and the ill-nutrition of the heart-muscle depending thereon, or the direct diphtheritic changes of the tissue, or both. These changes and dangers set in, sometimes, at a very early period. Thus whatever enfeebles must be avoided. Patients must be spared every unnecessary activity. They must remain in bed, without excitement of any kind, take their meals and evacuate their bowels in a recumbent or semi-recumbent position; crying and worrying must be avoided; the room kept airy and rather dark, so as to encourage sleep if the patient be restless. In no disease, except, perhaps, in pneumonia, have I seen more fatal results from sudden changes of posture, or from exertion. Unless absolute rest be enforced, neither physician nor nurse has done his or her duty.

The threatening feebleness of the heart yields a positive therapeutical indication. In no disease is the danger greater from the side of the heart, in no disease is the indication for sustaining and strengthening the heart more positive from the very beginning. Digitalis, strophanthus, spartein, besides camphor, alcohol and musk, must not be postponed until feebleness and collapse have set in. It is possible or probable that they will appear; and it is certain that a cardiac stim-

ulant will do no harm. It is safe and advisable to use them at an early date. That is particularly necessary when antipyrin or antifebrin is given. A few grains of digitalis, in a palatable and digestible form, may, or must be given daily. When a speedy effect is required, one or two doses of from two to four grains are not too large, and must be followed by smaller ones. When it is justly feared that the effect of digitalis may be too slow, I give, with or without the former, sulphate of spartein. An infant a year old will take one-tenth of a grain four times a day, as a matter of precaution, and every hour or every two hours in an emergency.

Of at least the same importance as cardiac tonics are alcoholic stimulants. The advice to wait for positive symptoms of heart failure and collapse before the life-saving apparatus is employed, is bad. There are cases which get well without treatment, but we do not know beforehand which they will be. No alleged mild case is safe until it has recovered. When heart failure sets in—and often it will occur in apparently mild cases—our efforts are too often in vain. Thus alcoholic stimulants ought to be given early, and in large quantities, though amply diluted. There is no such thing as intoxication or danger from it, in septic diseases. A few ounces daily may suffice, but I have seen ten ounces daily of brandy or whiskey to save children who had done badly with three and four.

But the best internal stimulant, in urgent cases, is Siberian musk, in powders, or with mucilage. When required at all it ought to be given in sufficient doses, and at short intervals. When ten or fifteen grains administered to a child one or two years old, will not accomplish, within three or four hours, a return of a more satisfactory heart's action, the prognosis is very bad.

Besides exhaustion at the height of the disease, we have paralysis during convalescence, or intense anemia long after apparent recovery. This anemia may be general, or is local, and then mostly cerebral.

Diphtheritic paralysis, though of different anatomical and histological origin, yields in all cases a certain number of identical therapeutical indications. These are: The sustaining of the strength of the heart by digitalis and other cardiac tonics. A child of three years may take daily for a month three grains or its equivalent, for instance, one grain of the extract. This is an indication on which I cannot dwell too much. Many of the acute, and most of the chronic diseases of all ages, do very much better by adding to other medications a regular dose of a cardiac tonic. It is true that it is a good practice to follow the golden rule to prescribe simply, and, if possible, a single remedy only, but a better one to prescribe efficiently. A prescription paper with a single line on it looks well, but a readily convalescent or well man looks better.

Besides, there are some more indications. Mild preparations of iron, provided the digestive organs are not interfered with. Strychnia or other preparations of nux at all events. In ordinary cases a child of three years will take an eightieth of a grain three or four times a day. Local friction, massage of the throat, of the extremities and trunk, dry or with hot water, or oil, or water and alcohol; and the use of both the interrupted and continuous currents, according to the known rules, and the locality of the suffering parts, find their ready indications. The paralysis of the respiratory muscles is quite dangerous; the apnea resulting from it may prove fatal in a short time. In such cases the electrical current used for very short periods, but very frequently, and hypodermatic injections of sulphate of strychnia in more than text-book doses, and frequently repeated, will render good service. I remember a case in which these, and the occasional use of an interrupted current, and occasional artificial respiration by Silvester's method, persevered in for the better part of three days, proved effective.

Chloride of Iron.—I am still, as I was in my first paper on diphtheria, in 1860, an advocate of the internal use of chloride of iron. Its mode of administration I have not

changed much these twenty years. In a public lecture delivered before a New York audience, by an European authority, whose name has lately appeared a little more prominently in the newspapers than an American physician would wish, I was highly praised for giving a few drops of the tincture of the chloride of iron a few times a day.

In connection with this remedy, I wish to make a remark of decidedly practical importance. I know quite well that recovery does not always prove the efficacy of the remedy or remedies administered. But I have seen so many bad cases recover with chloride of iron, when treated after the method detailed above, that I cannot rescind former expressions of my belief in its value. Still, I have often been so situated that I had to give it up in peculiar cases. These are such in which the main symptoms are those of intense sepsis, I should say such in which the iron and other rational treatment was not powerful enough to prevent the rapid progress of the disease.

"If ever mercury is expected to do any good in cases of suffocation by membrane, it must be made to act promptly. This is what the blue ointment does not. In its place I recommend the oleate, ten or twelve minims of which may be rubbed into the skin along the inside of the forearms or thighs, or anywhere else when those surfaces become irritated, every hour or two hours. Or repeated doses will be useful such as mentioned before, or hypodermic injections of corrosive sublimate, in one-half or one per cent solution in distilled water, four or five drops from four to six times a day or more, either by itself or in combination with the extensive use of the oleate, or with calomel internally. Lately, the cyanide of mercury has been recommended very strongly. I hardly believe that it will work more satisfactorily than any other equally soluble preparation. Within the past few years the internal administration of bichloride of mercury has been resorted to more frequently and with greater success than ever before.

"My own recent experience with it has been encouraging, and so has that of some of my friends. Wm. Pepper gave one thirty-second of a grain of corrosive sublimate every two hours in a bad form of diphtheritic croup, with a favorable result. But in this very bad case, desperate though it was—child of five years, respiration 70, pulse 100—large membrane 'evidently from the larynx' had been expelled before the treatment was commenced on the seventh day of the disease. The remedy ought to be given in solution of 1:5000 and in good doses. A baby a year old may take one-half grain every day many days in succession, with very little, if any intestinal disorder, and with no stomatitis. A solution of the corrosive sublimate in water is frequently employed of late as a disinfectant. It acts as such in a dilution of 1 in 20,000. As healthy mucous membranes bear quite well a proportion of 1:2000 or 3000, any strength between these extremes may be utilized. A grain of the sublimate in a pint or more of water, with a drachm of table salt, will be found both mild and efficient. As a gargle and nasal injection it will be found equally good. But it has appeared to me that frequent applications give rise to a copious mucous discharge; hourly injections into a diphtheritic vagina become quite obnoxious by such over-secretion, which ceases at once when the injections are discontinued. Thus, when it is desirable not only to disinfect, but also to heal the diseased surface, the injections with corrosive sublimate appear to yield a result inferior to less irritating applications."

These remarks of 1884 constitute what I consider a great progress over the statements of my treatise on diphtheria, 1880, which are more cautious and negative. Extensive experience with the remedy increased my favorable opinion of its efficiency to such an extent as to induce me to publish a number of cases and conclusions in the *Medical Record* of May 24, 1884.

My remarks in a paper written in 1884 (Med. Record, May 24, 1884,) have been amply justified by the observations of the last four years, so that I am fully prepared to

commit myself to the following statements: My conviction of the utter uselessness of internal medication in laryngeal diphtheria, membranous croup, is strongly shaken. The mortality of 90 or 95 per cent. of the cases not operated upon has no longer existed these five or six years, in my observation. The above figures were by no means taken from small numbers. For since 1860 I have tracheotomized more than 500, perhaps, 600, times, have assisted in as many more operations, and seen at least a thousand cases of membranous croup which were not operated upon at all. During the last six years I have seen no less than 200 cases,perhaps many more. Amongst them recoveries have not been rare. In the practice of no less a man than O'Dwyer, I have seen two cases of general and laryngeal diphtheria in the same family which got well without any operative procedure. Such recoveries have taken place in all ages, from four months upward. The uniform internal medication consisted in the administration of the bichloride of mercury. The smallest daily dose was a quarter of a grain (15 milligrammes). Half a grain daily continued through five or six, sometimes eight, ten, or even twelve days, has not been rare amongst children of from three to six years. The doses varied from one-sixtieth to one-fortieth of a grain and sometimes more. They are given every hour. They require the dilution in a tablespoonful of water, or other compatible fluid, for instance milk, in order to be quite innocuous. They are not liable to produce gastric or intestinal irritation. When the latter occurred, it was generally found that by some mistake the solution was as strong as 1:2000 or 1:3000. In the few cases in which it did exist, or was believed to result from the remedy, a few minims of camphorated tincture of opium administered with every dose, for a short period, proved sufficient to check it. The beneficial effect of the remedy depends greatly on the time of its administration. As a rule, such complete stenosis as necessitates surgical interference, develops after days only. This necessity is often obviated by the remedy when given as detailed. When an operation is required after all, the treatment must be continued. I have never since 1863 seen so many cases of tracheotomy getting well as between 1882 and 1886, when the bichloride was constantly used as mentioned. Nor am I alone with these observations. I can name a dozen of New York physicians, some of whom have often performed tracheotomy, who can confirm the above statements from their own observations. Nor does the opinion of those differ who constantly perform intubation. I know that O'Dwyer, Dillon Brown, and Huber have come to the same conclusions,the latter having been a successful tracheotomist before he earned his laurels with intubation.

My experience in regard to the efficacy of the bichloride of mercury is mainly gathered in cases of laryngeal diphtheria, and a limited number of fibrinous bronchitis. It is there where it has been particularly effective. Still I must not say that they were localized affections. These, with us, are but very scarce. Our cases of diphtheritic laryngitis are mostly decreasing, and complicated with either diphtheritic pharyngitis, or rhinitis, or both. Not a few, mainly of the latter kind, exhibit constitutional symptoms, sepsis. But cases of that kind also I have seen getting well. One of the most interesting was that of a girl of seven years whom I saw a single time in consultation with Dr. J. Anderson. There was nasal and pharyngeal diphtheria, cervical adenitis, and some laryngeal stenosis. I recommended an hourly dose of one-fortieth of a grain of bichloride, which she took for ten days, also nasal injections of the same, one grain to a pint. They were made hourly for many days, and altogether continued for more than a fortnight, for the patient lived so long, and is still alive. She swallowed almost all the nasal injections, and great was my surprise when after some weeks I received the report of the case and learned that about twenty grains of the bichloride had found their way into the stomach of the little girl. She lived, had but little stomatitis, and hardly any intestinal irritation. If the case does not prove anything else, it proves this, that even desperate cases will get well; this case got well with the bichloride of mercury, and resembles all the other cases in this that after the rational and careful administration of solutions of hydrargyrum bichloride, local mercurial symptoms about gums, mouth, pharynx, and intestines are extraordinarily rare in infancy and childhood.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, JULY 14, 1888.

OPERATIVE INTERFERENCE IN PERITONITIS.

Mr. M'Ardle, in speaking before the Royal Academy of Ireland (*Brit. Med. Jour.*) expressed opinions that were somewhat at variance with those generally held by medical men. He had opened the peritoneal cavity a fair number of times for inflammatory conditions, and he had never encountered anything capable of disappearing that could do any harm. Now, there is nothing more certain than that the plastic exudation, which is the result of the inflammation, may be entirely reabsorbed, or it may become organized into fibrinous bands, which by contraction may occlude the caliber of the intestine and produce death of the patient. Mr. M'Ardle further stated that inflammation of the peritoneum might do very little harm, and, at all events, would not produce death. During the past five or six years he had been accustomed, in cases of peritonitis that seemed beyond recall, to open the abdominal cavity and wash it out, and if the substance that produced fatal results was removed, the patients, in the large majority of cases recovered. In the last three years seventy per cent of such cases recovered, whereas if there had been no operative interference, all of the cases would have succumbed to the disease. His experience had been that in cases of perforative peritonitis collapse had persisted from the beginning to the end, and he attributed this to an effusion of intestinal gases into the peritoneal cavity. The statistics which he gave referred only to septic peritonitis without perforation.

The number of cases is rapidly multiplying in which recovery follows operative interference where abscess is the result of perforation of the vermiform appendix.

LIQUID PRESSURE IN PLEURAL CAVITY AS A TREATMENT OF PHTHISIS.

An interesting case, treated at Cambridge Hospital, Aldershot, is reported in the *Lancet.* The patient had tubercular phthisis involving the apex of the right lung. The left lung was normal. For about four months the disease steadily progressed under the usual treatment. He had frequent hemorrhages, and on several occasions was collapsed from the loss of blood. At the expiration of the time mentioned, pus made its appearance in the right pleural cavity. On account of the gravity of the case the attending surgeon allowed the liquid to accumulate that by pressure it might close the phthisical cavity. Day by day the quantity of expectorated material diminished as the pressure in the pleural cavity increased. At the end of two weeks the expectoration was free from blood. At the end of three weeks the left or sound lung began to show signs of congestion, and twenty-six ounces of pus were drawn off from the right pleural cavity. About a month later aspiration was again performed, and a few days thereafter a drainage tube inserted into the right pleural cavity. From this time on the patient made a rapid recovery. Six months after the empyema first occurred the patient had regained his former weight, and was discharged cured, physical signs indicating that the cavity in the right lung had healed, and there was induration of the surrounding lung tissue.

EXERCISES FOR GIRLS.

The editor of the *Brit. Med. Jour.* says that calisthenic exercises, when conducted on scientific principles, are of great value in regulating the nerve centers; well co-ordinated

series of movements imitated from the teacher, or produced to the word of command, tend to produce a well knit nerve and muscular system, responding with ease and gracefulness to impressions received through the eye and ear.

No one will gainsay the fact that physical exercise is too much neglected in the rearing of girls. As a rule boys can be trusted to work out their own physical development in their rough and tumble sports, but the more delicate girls are inclined to stay within doors. What is said above of calisthenics is especially true of the "broomstick drill." We know of no other exercise that combines in so delightful a way both mental and physical culture. It is very desirable that the mind shall be trained to act promptly. This drill teaches the power of concentration, when a command is given it must be obeyed promptly, and if not, the ill consequences are apparent at once. The shifting of the broomstick is an easy, yet a sufficiently active exercise to develop the muscles.

Of course, any exercise may be carried to excess, but this has the especial advantage of being under the direct control of the instructor.

Now that the expansion of the apices of the lungs is thought to be a prophylactic of phthisis, it is doubly important that such exercises should be adopted by our schools, as tend to accustom the pupils to carry themselves erect—shoulders and head thrown back. Then, too, aside from a medical standpoint, the importance of such training as bearing upon the influence the pupil is to command in after life, is too often overlooked.

The New Orleans Quarantine.

An interesting report has been rendered by Assistant Surgeon, J. J. Kinyoun, U. S. Mar. Hospital Service, who was detailed to test the efficiency of the methods of disinfection of ships, employed by the State Board of Health of Louisiana.

Surgeon Kinyoun performed a number of experiments, placing cultivations of from six to ten varieties of germs (among which were the cholera, the yellow fever and the typhus fever) in the ships that were subjected to the disinfecting process. In some of the experiments all the germs were killed, in some only a part of them, and in others they were not affected. Surgeon Kinyoun said: In the evolution of such an establishment (N. O. Quar.), the many difficulties that must have stood in the way of such an undertaking, due credit must be given to those gentlemen who formulated the theory and put into practical operation the present system of disinfection.

He further says that from the series of observations made in determining the temperature of the chamber for the application of dry and moist heat it is clearly shown that the time prescribed is entirely too short when the chamber is filled with goods; more especially is this the case when the chamber is filled with such goods as blankets, mattresses and cushions. Unless a longer period of time is given to each charge it is certain that only a partial disinfection is accomplished.

The Louisiana State Board of Health proposes advancing this quarantine to the highest degree of proficiency.

There can be no question but that it has been a great protection.

Trash in Medical Literature.

Much has been recently written about the publication of "trash" in medical journals. It has even been suggested that the number of journals should be limited in order that only the most scientific productions may be placed before the profession. The tendency of medical practice to-day is from the empirical to the scientific, and in the great rejoicing at the marked advances made toward this end, we are too apt to forget that we have no better reason for administering drugs to our patients in the majority of cases than that good results have been obtained in this way at some previous time. It is highly probable that the time will never be reached when it can be said that when a patient has a certain disease a certain medicine should be given.

At present such specific directions can not be given even for a symptom, so varied are the conditions that may accompany it. The best that we can hope to do is to determine what remedy will most likely give the best results in any given case. This can be done only by comparing the results in a large number of similar cases. The Collective Investigation System that is now being carried out in England is a marked effort in this direction.

So long as empiricism forms so great a part of medicine, just so long will the report of cases in practice (though ever so meagre) be of interest to the really progressive physician. Much of the literature that seems old, stale or worthless, contains reports which in themselves are worth but little, but added to the general stock of knowledge enables us to form intelligent opinions of the principles governing them. Articles that are all theory are in many respects valueless; but every article that contains the report of a case has its value. Busy practitioners throughout the country should be encouraged to add the results which they obtain in difficult cases to our general stock of knowledge.

The greater the number of medical journals the greater will be the distribution of knowledge. He who criticizes should remember that what is old to him may be entirely new to another, and it is barely possible that he may be ignorant of certain facts in medicine that have long been known to others.

The Review is always glad to receive contributions from its readers.

Grafts of Chicken-Skin.

G. Martin reports a case (translated from the French for *Physician and Surgeon*) of a child whose entire scalp was burned, and eight months later grafts of the skin of fowls were used with the result of obtaining a regeneration of skin, seven centimeters by eight, in two months.

In speaking of transplantations. he says:

We think that the skin of fowls, and especially of chickens, is to be recommended; it is supple, of fine texture and vascular, and it stretches well over the surfaces, and adheres without reabsorbing, giving important islands of epidermis which develop and spread, forming new tissue, soft and quite different from ordinary cicatricial tissue. The manual of operation which we employ in our grafts is very simple. The skin should be raised under the wing of young chickens and should have no cellular tissue attached, and no fat; the shreds should be one-half to one centimeter square; sutures are useless, the skin adhering very easily. The wound and the dressing should be rigorously aseptic. Iodoform gauze and light cotton compresses may be used.

These are certainly interesting facts for the general practitioner who often has extensive ulcerated surfaces to treat, and patients often, through ignorance of the amount of pain given in taking the grafts from the arm, decline to submit, whereas the chicken-skin can always be readily obtained. We are inclined to think that this effective aid to the healing of extensive denuded surfaces, is not resorted to as frequently as it should be. It not only hastens repair, but lessens the amount of cicatricial contraction which follows.

Recently several operations have been reported in which the contraction that follows the healing of long-standing trachoma, has been effectually overcome by transplanting mucous membrane from the lower lip.

Surgical Treatment for Incontinence of Urine.

Dr. Wm. Alexander, of Liverpool, reported before the British Gynecological Society (*Brit. Med. Jour.*) a case of patulous urethra in a woman thirty-five years of age. To relieve this condition he made an opening in the recto vaginal wall, dissected the urethra from the pubic arch, inserted it into the opening which was thus closed save at its upper part. The operator then completely closed the vulval opening. By this means the urine passed from the bladder into the

rectum, and the vaginal secretion passed also into the rectum through the opening immediately above the urethra. At the time of the report the patient could hold her water four hours. A similar operation was successful in a case in which the entire urethra had sloughed away.

Mr. Lawson Tait, in speaking of the operation, referred to a case operated upon by Sir James Simpson, and one by himself, in both of which the operation had to be undone on account of the diarrhea set up by the irritant effect of the urine in the rectum. In spite of this, however, he was attempting a third case in the hope that rectal irritation may not occur in every instance.

In one of Dr. Alexander's cases a fold of mucous membrane overlapped the urethral orifice and it is possible that it is sufficient to retain the urine in the bladder till it fills.

The rectum is well supplied with nerves and ordinarily it is empty. It seems hardly probable that it would brook the constant presence of urine, especially when excessively acid or alkaline.

Management of Fibro-Myomata Complicating Pregnancy.

John Phillips, B. A., M. R. C. P., Physician to the British Lying-in Hospital, says (*Brit. Med. Jour.*) that a fibroid or fibroids may modify the course of pregnancy, labor, puerperium in the following ways:

1. During pregnancy their presence may induce a premature termination, for a tumor in the uterine wall materially interferes with the regular development of that organ.

2. They may set up localized peritonitis, which will produce adhesions with various organs—that is, intestines, liver and rectum. In addition, they are the cause of such intense pain and distention as to necessitate operative interference during an early period of the pregnancy.

3. A tumor may mechanically obstruct the passage of the fetus through the pelvic canal, and may thus even occasion resort to Cesarean section or the Porro-Cesarean operation.

4. Frequency of fetal malposition is very common, and is a noteworthy fact as leading to increased infant mortality.

5. After birth of the child the placenta may be found adherent to the tumor, rendering manual delivery necessary, and consequent bruising of its substance. Placenta previa is certainly more frequently found as a concomitant of fibroids.

6. Uterine contraction after expulsion of the placenta may be more or less inefficient, owing to the presence of the tumor, and hemorrhage may result. Involution is also much delayed.

7. Morbid softening and disintegration may take place either before or after labor, leading to peritonitis and its concomitant evils. Torsion of the pedicle and subsequent gangrene of the tumor have been noted.

This dangerous complication of gestation is fortunately rare, but it occurs sufficiently often to command the attention of every obstetrician.

Dr. Phillips has collected the statistics of the past ten years bearing upon this subject. He says that if the fibroid is located in the fundus of the uterus, it gives trouble during pregnancy. If it is located in the lower segment of the uterine body or in the cervix it gives trouble either by pressure or as an obstruction to the passage of the child during labor. Those which encroach upon the vaginal cavity posteriorly are more likely to prove to be serious obstrnctions than those located anteriorly.

The increased vascularity of the uterus and uterine fibroids that accompany gestation, render some fibroids so soft as to admit of their being sufficiently flattened by pressure during labor as to render them comparatively harmless as obstructions, while others may remain hard and unyielding. On this account Dr. Phillips says each case must be treated on its own merits.

Of fifty-nine cases that he collected, where difficulties had arisen but where abdominal section was not required, abortion was pro-

duced in three in the early months of pregnancy, and it occurred in one accidentally. All the four cases recovered. Abortion was thought to have been produced in another case, but subsequent developments proved it had not been.

Myomotomy (opening the abdominal cavity and removing one or more fibroids by ligature, and closing the incision, hoping the pregnancy may continue)—is only called for when the fibroid is attached in an accessible situation and its presence is producing great disturbance. Five cases of this operation are recorded, in three of which the patients died.

Statistics upon an operation of this kind are worth but little, as so much depends upon the amount of traumatism necessary for the removal of the tumor, and no two cases are alike.

It is somewhat different with Mueller's ab ation, which is "abdominal section with removal of the tumor and the uterus containing the non-viable child." Here the degree of traumatism necessary is much the same in all cases. The death rate is much less in this operation than one would suppose, being only seven in the nineteen recorded cases.

Among the fifty-nine cases referred to, labor was induced in three, with the discouraging result of two maternal deaths and the survival of one child.

The statistics collected since 1880 of the Porro-Cesarean operation and the Cesarean section show the same number of operations of each and the same number of deaths resulting—operations of each, 13; deaths, 9. Dr. Phillips favors the former, as the dangers of hemorrhage and metritis are eliminated, and the danger to septicemia is much less. One reason given in favor of the former is the preclusion of the possibility of a recurrence of pregnancy. The history of such cases proves that this is an important point.

He regards the reposition of the tumor at the time of labor as of little value. He refers to the successful removal of fibroids from the cervix per vaginam during labor by Munde, Hicks and Lomer, and he thinks in selected cases it is an admirable procedure, but thinks the liability to septic infection must be great.

Carbolic Acid in Typhoid Fever.

It is quite universally believed that enteric fever is due to a specific microbe. Dr. F. Sidney Gramshaw claims (*London Lancet* June 23), to have proven that a combination of carbolic acid and iodine has a direct curative effect by destroying the typhoid bacilli in the body, when administered to persons with the disease. He bases his opinion on his results in one hundred and sixteen cases in which he had but one death, and that was due to pneumonia contracted while convalescing from the fever.

This is certainly a remarkable showing,and if it can he verified by others the remedy will be hailed with delight by the profession. It certainly deserves to be given a fair trial for we have no other remedy which acts with any degree of certainty on the disease itself. The best that we have been able to do is to treat the symptoms, ward off complications and allow the disease to run its course.

As every physician knows, many cases of continued fever are extremely difficult to diagnose. Many cases of typhoid fever are treated under other names and *vice versa*. For this reason, in order to test the therapeutic value of a remedy in this disease it is necessary to have the experience of a number of observers.

Dr. Gramshaw justly remarks that the mere fact of having so many cases, all treated alike, is of great interest, without taking into account the remarkable results. His treatment is as follows:

The patient is of course confined to bed, in a well-ventilated room if possible, and every effort is made to ensure that no particle of solid food of any kind is administered by over-anxious relatives. The diet is restricted to milk, toast-and-water, barley-water, and calf's-foot jelly; new milk is always insisted upon as the main support, from a quart to three pints being given to an adult in the twenty-four hours. The carbolic acid is or-

dered in a mixture, of which this is the prescription: Take of carbolic acid (Calvert's extra pure for internal administration), twelve minims; tincture of iodine (B.P.), sixteen minims; tincture of orange-peel, one dram and a half; simple syrup, three drams; water to eight ounces; the dose to be an ounce every four hours for the first fortnight, or until the urgent symptoms yield, when the same dose is administered three times a day. The good effect is manifested almost immediately. In two days the pulse slows and gains in strength, the temperature falls, the tongue becomes moist, all diarrhea ceases, and the general condition of the patient is so much improved that, as a rule, in a week all anxiety is at an end, and the case progresses quietly towards recovery. It sometimes happens that a case is cut short by this treatment as suddenly as is a case of acute rheumatism by the exhibition of salicylate of soda; but more generally the fever runs its course of thirty days before all danger of relapse is past, and I have found it better to continue the medicine until the thermometer shows no rise of temperature for three or four clear days. If the pulse at any time rises above 120, the temperature 105°, or if sordes form on the lips or teeth, either champagne or brandy, and sometimes both, are given every two hours. This, however, is rarely necessary. Complete abstinence from any kind of solid food until all traces of fever have disappeared is insisted upon, and when the patient does return to his ordinary diet, the resumption of solids is a gradual progress from soup to boiled sole, chicken, mutton, and soft vegetables. Beef-tea is carefully avoided so long as the temperature is abnormal, as it so frequently gives rise to troublesome diarrhea. The carbolic acid combination is usually taken without trouble or difficulty. A day or two after commencing with it patients always complain that everything they take tastes of the medicine: this is unavoidable, and need give no anxiety, unless vomiting is excited, when it is a good plan to reduce the dose of carbolic acid and to add a small quantity of dilute nitro-hydrochloric acid. It is easy to detect the smell of carbolic acid in the breath and perspiration, but I have rarely noticed carboluria. It must also be noted that not only does diarrhea cease, but the opposite condition—namely, obstinate constipation—is generally induced. Aperients are decidedly to be avoided; if the bowels do not act for some days, I administer an enema of warm soap and water, or of a small quantity of castor oil emulsified in warm water with the yelk of an egg. If after convalescence there is trouble in getting a regular evacuation, I give daily small doses of belladonna and salad oil.

It will be seen from the foregoing that the disease though modified in its form is not eradicated from the system in the great majority of cases, under this treatment. However this does not prove that the remedy has no specific action against the disease. Quinine may seemingly cure a case of malarial fever, and yet without further exposure of the patient to the malarial poison the fever may develop again as violent as ever.

It is a great gain to be able to modify the disease, as complications are more frequent in the severer forms.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening, June 16, 1888. The president, Young H. Bond, M.D., in the chair, J. B. Prichard, M.D., Secretary.

Dr. F. R. Fry presented a communication from Dr. W. M. Gross, Gillespie, Ills., on Eclampsia Nutans."

Dr. J. B. S. Alleyne.—From the title of the paper, Eclampsia Nutans, I supposed we were to have a more definite description of the disease, Spasmus Nutans. In the case described there was not only a very great degree of irritability of the child, which was possibly due in a measure to a hereditary nervous temperament. In this particular case I think probably we ought to eliminate the idea of epilepsy; in fact, epileptic convulsions do not come within the scope of these particular spasms. It is very difficult to dis-

tinguish epileptic seizures from any other kind, except from the history of the case. From the manner in which the child was seized with the convulsions and their somewhat regular appearance, I take this to be a case of spasmus nutans; convulsions which we designate as hysterical. There are different kinds of convulsions, as you all know, and it is hardly worth while to dilate upon them; they run into, and are allied to each other. There are the choreic convulsions which depend upon the condition of the spinal cord, and when they accompany cerebral disturbance we have certain forms of movements simulating choreic movements but slightly convulsive in character, and we have the peculiar convulsions which are given in this case, which I judge, is an hysterical form. I think this diagnosis is strengthened by the effect of the treatment. The choreic form is not relieved by bromides; there are various convulsive seizures of certain groups of muscles here and there, something of the nature of what the French term "tics". If it had been an epileptic form, we could not have relieved it so soon and so easily.

In regard to the singular swelling of the head, it seems to me questionable whether there was a separation of the sutures. At any rate it is a singular feature of the case.

I recollect a case, a boy, eight or nine years of age, whom I saw not very long ago who had similar attacks. He had been bitten by a dog, and it was thought that perhaps that had something to do with the trouble. He had been troubled thus for a number of years, and almost all procedures had been tried to relieve his condition, but without effect; the prepuce had been removed among other things that had been done. I came to the conclusion that it was a case of hysterical convulsions, and treated him very satisfactorily with the ordinary medicine, arsenic. There is is a close alliance between these three forms of convulsons which are manifested by spasms.

Dr. Lutz.—I would like to ask Dr. Bauduy's opinion about the possibility of a dilatation or distention of the cranial cavity, so as to produce a separation of the bones of the head, the fontanelles at the age of three and a half years, without the production of symptoms referable to compression, either hemorrhagic or serous. In other words, is there apt to be such a condition of the head as to cause a separation of the bones and bulging of the fontanelles at the age of three and a half years without producing symptoms other than we had in this case.

Dr. J. K. Bauduy.—I was not so fortunate as to hear the paper, and I would like to inquire whether or not the conditions was due to hydrocephalus. As far as the mere bulging of the sutures is concerned and the distention, I can readily understand that, even supposing considerable ossification had occurred, absorption could very readily occur from pressure, if it were due to hydrocephalus subsequently developed after complete ossification. If I understand the doctor correctly he wishes to know why there were no symptoms of compression. I know nothingof the history of the case,but I suppose it could be very readily accounted for under the theoretical acceptance of the fact that the brain accommodates itself to pressure from the variations of the cerebral circulation. We know that just in proportion as there is a diminution of the quantity of blood, there must be an increase of the cerebro-spinal fluid. Now if we take that theory as a starting point in this case, and assume that there was hydrocephalus, we can readily believe that there might be a large hydrocephalic accumulation with very slight manifestation of disturbance. We know that this is stated by the authorities, and it has also been my experience. For instance, there may a large accumulation of fluid, accommodated by a separation of the sutures, by the bulging of the fontanelles, etc.,'and also by a corresponding squeezing out of a large amount of blood to accommodate this fluid, and thus no very great disturbance occur; especially when we take into consideration the slow manner in which the fluid develops in these cases, so that the functions of the brain, if disturbed at first, may very readily be re-

stored and no very great disturbance of function ensue either psychical or sensory; so that we may perhaps, account for it in one of three ways: upon absorption from the pressure (and we know very well how absorption of even bone may occur from pressure); by the inverse relation existing between the fluid and the blood pressure, (with the increase of the serum of the blood there being a corresponding diminution of the circulation of the brain) and then the additional space or room afforded by the bulging of the fontanelles, and by a more or less division of the bones.

Dr. Lutz.—The reason I asked the question was because it seemed a little unusual that there should be such a separation of the fontanelles in a child three and a half years old which was otherwise properly developed, and in which originally there was no evidence of hydrocephalus. It seems to me that if any effusion occurred it would be likely to be due to acute hydrocephalus. The rapidity with which this distention is said to have occurred, as we learn from the history of the case, is so entirely different from what we ordinarily expect, that it struck me as very remarkable. I cannot possibly conceive that a distention of the sutures about the skull of the child from hemorhagic effusion would occur without the production of very serious symptoms referable to the brain.

The attempt to explain the case on the theory of a diminution of the cerebro-spinal fluid, whilst it may hold good where there is only a limited effusion, where, for instance, there is an effusion from the middle meningeal artery upon the brain, and where a certain amount of space may be accounted for by the recession of the cerebro-spinal fluid, I do not suppose it will be contended that more than a limited space can thus be provided, and as soon as the effusion becomes at all large the compensation no longer holds good, but you have at once symptoms referable to the particular areas which are covered by the hemorrhagic effusion.

Now as to the rapidity of its disappearance. The fact that in a child three and a half years old a distention of the sutures shonld have occurred without a previous history of chronic hydrocephalus, aud then all these physical symptoms recede inside of three weeks, seems to me rather far fetched. I do not see how it could occur. In other words, the changes which are necessarily produced when the sutures in the skull are separated even in a child, are of such gravity as not to permit of the restoration in so short a time as three weeks.

It occurs to me that this is a case of epilepsy, perhaps of the milder variety, but unquestionably epilepsy. There was a seizure, loss of consciousness, convulsions, and a rapid restoration within a few minutes. I am not prepared to say how much the treatment, as Dr. Alleyne suggests, explains the nature of the case, because, whilst it is true that the bromides as administered by Dr. Fry or Dr. Gross resulted in considerably ameliorating the condition of affairs, yet this would hardly give us reason for deciding definitely as to the condition, because you know that fortunately for our patients, the administration of bromides works well in many different conditions.

I agree with Dr. Fry in his supposition that this is a case of epilepsy. I doubt very seriously whether there was any separation of the sutures. I can readily see how the gentlemen may have been mistaken. When you remember the manner in which the bones of the skull are developed and are separated in the fetus, and during the first portion of extra-uterine life, you can readily understand, and acchouchers will tell you, that when a child is born with the assistance of forceps, or after tedious labor, and hemorrhagic effusion occurs, underneath the pericranium it is distinctly marked and circumscribed by the sutures, because the pericranium forms the boundary line, the hemorrhage does not extend beyond this boundary line, that being one of the diagnostic signs between a hemorrhage occurring beneath the pericranium and that occurring in the scalp itself. Now, here is a child which falls, and falls on a certain point all the time, it strikes its head on the floor, and I can readily understand how hem-

orrhagic effusion might occur there. I can readily understand after this child had fallen on its head a number of times that an observer might mistake the groove between the parietal and frontal bones for a separation of the sutures.

Dr. Bauduy.—Where there is a sudden condition of cerebral surprise, a brain shock is the result; where there is a sudden pathological condition, an extravasation, or effusion, or a transudation, there must necessarily and inevitably occur, brain shock, accompanied by symptoms of compression varying of course in proportion to the extent of the effusion or extravasation, but on the contrary we know that if time is allowed to elapse, the brain will accommodate itself to the pathological development. We know that the most marvelous results have occurred first on account of the duality of the action of the hemispheres of the brain; and then moreover that the most disastrous cerebral lesions may develop without any symptoms occurring at all. You will recollect the celebrated case of Trousseau wherein the anterior lobe of one hemisphere was destroyed by a large scirrhous tumor, and yet the patient was celebrated for his loquacity.

Wherever you have a sudden extravasation you will have symptoms of compression superinduced just in proportion to the pathological condition. If it is rapid in its invasion there will be a corresponding suddenness of the development of symptoms of compression, but where time is afforded; where the vast cortex has power to perform its wonderful work there may be an abeyance of the symptoms.

The President.—We shall be pleased to hear from Dr. Middlekamp.

Dr. H. H. Middlekamp.—I do not know that I have any well formed opinion in regard to this case. I am inclined to think it is a mild case of epilepsy. Perhaps there was some traumatism due to the injury received from the horse. I do not think it could have been due to effusion because I think there would have been symptoms of compression of the brian. I am inclined to lean to Dr. Lutz theory. The child is getting well. Very frequently we are called upon to treat cases in which we are in the dark as to the real cause of the trouble, and we are justified in adopting a certain line of treatment, and if those methods are successful of course we are all right. We are constantly meeting cases which we cannot explain without making a post-mortem.

Dr. Hendrix.—I would ltke to ask Dr. Fry if any measurements were taken before and after the increase of the size of the child's head?

Dr. Fry.—Yes, sir, there were but I do not think Dr. Gross has given any of the measurements.

Dr. Hendrix.—If the skull was very much larger in circumference during the attack the probability would be against the theory of local extravasation.

Dr. Dudley.—Did you say there was partial paralysis of one of the arms?

Dr. Fry.—There was no evidence of paralysis.

Dr. Love.—The history of the case as given is that of epilepsy. I can not believe that there was any extravasation into the cranium. I think the repeated falls may have produced extravasation under the scalp, and this impressed the observers with the idea of the possibility of effusion having caused an opening of the fontanelles or sutures. I can readily understand how this effusion, probably being quite extensive, ending just at the border line of the hematoma, should have created the impression that possibly it was the line of the skull bone. Such cases are very misleading. I can readily understand that in this case the line of hematoma might have taken such a shape as to suggest the line of the parietal bone or the line of a separated suture. I think unquestionably the extravasation was outside the cranium. There could not have been even that amount of extravasation within the craninm without producing such profound disturbance as to have clearly indicated its presence, and I do not believe that there could have been a general effusion which could

have appeared and disappeared inside of three weeks.

I think it was clearly a case of epilepsy, with this hematoma as a complication, which was the result of the direct violence caused by falling upon the head. The result of the treatment instituted by Dr. Fry further confirms that. I think, in the majority of instances, these cases do not get bromides in sufficiently large doses. They should be given well diluted in water.

Dr. Hornsby.—Dr. Fry in his report stated that at one time during the course of the cephalic enlargement, the child vomited a mixture of pus and blood and that this was followed immediately by a subsidence of the cephalic enlargement. I would like to ask whether he thinks there was any relationship between the subsidence of the cephalic enlargement and the vomiting of this fluid.

Dr. Alleyne.—It occurs to me that this disease subsided too rapidly for epilepsy. In my experience we do not often see epilepsy occurring in such young children, and epilepsy begins with a serious convulsion, and runs on for a good length of time. In this case the trouble ran a rapid course, and was treated very satisfactorily and very properly with bromide. The termination of the disease was about as rapid as its beginning.

Dr. Wm. Johnston.—I think perhaps we have a correct history of the swelling. I think it cannot be a hematoid tumor either external or internal. Those who have had experience in midwifery know that hematoidal tumors take time to absorb. We know it takes time for the blood to be absorbed when it is extravasated. The report here is that this tumor disappeared in a space of less than three weeks.

My experience is that epilepsy occurs about as often in children as in grown persons. I think the swelling referred to was nothing more nor less than an effusion of serum into the connective tissue.

Dr. Auler.—I would like to ask Dr. Fry if there was any history of hereditary trouble in the family?

Dr. Fry.—There was no history of hereditary nervous trouble; no insanity or neuralgia or apoplexy or anything of that kind, but the mother is of a neurotic temperament. She is a bright, intelligent lady. So far as the injury from the horse is concerned, there was no evidence of traumatism, the patient was supposed to be more frightened than hurt.

Dr. Dean.—It has occurred to me during the remarks that it is not incumbent upon us to explain a paradox, when the paradox itself is not proven. If asked to explain why it is that a pail of water weighs no more with a frog in it than it does without the frog, the first thing to do is to ascertain if this is actually true. It seems to me that in this case between the observations of the mother, the attending physician and Dr. Fry, valuable time and opportunity have been lost for differentiating what was really present and not present. I should think, taking the case as it has been presented, and eliminating from it as doubtful some points that have been given, that it is a case of epilepsy proper and not a case of eclampsia. The explanation that has been made by one or two speakers that in these cases a hematoma may simulate, or give the impression that there is, a separation of the cranial bones with the edges of the bones presenting. If the hematoma is in the scalp, the subcutaneous tissues or sub-aponeurotic, it may be moved or diffused past the sutures. If it is sub-periosteal, under the pericranium, it is true it can be pressed out to the sutures or edges of the cranial bones where it will form a ridge that feels like the edge of the bone. But it is equally true that if the ridge be pressed toward the center of the bone the ridge will disappear. But the hematomata will be over their respective bones. It would be strange for the patient in his several falls to so strike as to produce several hematomata that should simulate a symmetrical enlargement. If there were a hematome under the periosteum it would not disappear in this way, and there would be more or less of bony formation before such a cure would occur.

Dr. Fry.—I said to Dr. Gross that I believed it impossible that there should have been in this case, what he thought he observed. I believe he was simply deceived. I think there was an injury to the scalp due to the manner in which the head had been hammered against the ground or floor, perhaps some extravasation of blood under the scalp, possibly under the pericranium itself. I I do not see how there could have been such a distention or enlargement of the head happening in so short a time, from fluid in the cranial cavity without symptoms of compression. There was no evidence of hydrocephalus, it was a strong healthy child, and there had been nothing remarkable or abnormal about its cranium. Dr. Mudd saw the child and had some correspondence with Dr. Gross, and Dr. Mudd said explicitly that he did not believe in Dr. Gross' theory of the thing. There is not time to discuss the matter of whether this was a case of epilepsy, but I hope at some other time to hear the subject discussed at length, and there are certain reasons which I hope to mention which will tend to support the idea of this being a case of epilepsy. The tendency among the authorities is to regard cases of this kind in that way, not because it was cured with bromide however, but on account of the character of the spasms and the evident tendency to continue and not to get better until suitable treatment was used, etc.

Now there is a feature in this which Dr. Bauduy had not heard. After this swollen, distended condition of the head had persisted for three weeks, the child was one night seized with symptoms of strangling and repeated swallowing, and soon after that it vomited a large quantity of blood mixed with pus. Dr. Gross' theory is that this blood found its way from the cranial cavity through the nares and pharynx, and after being swallowed was immediately rejected by the stomach.

SELECTIONS.

ECTOCARDIA CURED BY A PLASTIC OPERATION.

Professor Lannelongue, of Paris, recently presented to the Academie des Sciences a very remarkable case of deformity of the chest wall, with ectopia of the heart, which he had dealt with successfully by oparation. The patient was a female child, six days old, well-formed in every part except the thorax. On the front of the chest over the middle of the sternum there was a circular ulcer, rather larger than a franc piece, the base being formed by a yellowish membrane which appeared to be becoming gangrenous. It was already detached from the edges of the ulcer at several points, and thus only imperfectly closed the aperture into the chest. Each beat of the heart pushed it forward, and on applying the finger during systole the hardening of the ventricular walls as they contracted could be distinctly felt. The inner ends of the clavicle articulated below with the first rib, and appeared to be free internally and above: the sternum was entirely wanting between them. The gap in the osseus wall of the chest extended downward in the middle line; the sternum appearing to be represented on each side only by a narrow strip of bone running downward and obliquely inward, and finally joining the corresponding piece below the median ulcer already referred to. The deficiency in the bony chest wall was therefore of the shape of an isosceles triangle, the appex being below at the ensiform cartilage and the base above at a line joining the inner ends of the two clavicles. The side of the triangle measured 4, and the base 3 centimeters. The circular ulcer was as it were inscribed in this triangle. On inspiration the chest wall corresponding to the malformed part of the skeleton was drawn in, so that a hollow half an inch deep was formed at the upper part; in expiration, on the other hand, it bulged markedly forward. A few days after the little patient was first seen, the remains of the "obturator" membrane at the

bottom of the ulcer disappeared; the pericardium was seen to be entirely wanting; the apex of the heart projected outside the chest, and the whole anterior surface of the ventricles was exposed. The hole in the skin became gradually smaller owing to the formation of large fleshy granulations, which pressed on the apex and ventricles of the heart, and it was obvious that immediate surgical interference was necessary to prevent most serious disturbances of the circulation. M. Lannelongue therefore made two vertical incisions on each side, 1½ centimeter to the outer side of the ulcer; the flaps thus formed were sufficiently loosened to allow of their internal edges being brought together over the opening in the chest wall, where they were fixed by three hair sutures. Only a few drops of blood were lost; the operation was not followed by any constitutional disturbance, and the wound was entirely healed in twenty days. Two months after the operation the child was in perfect health. M. Lannelongue points out that in this way he transformed the case from one of "ectocardia" into one of "subcutaneous ectopia." He thinks that the ectopia, which is at present extra thoracic, may in time, as the heart developes, become intra thoracic. Professor Verneuil, in presenting M. Lannelongue's communication to the Academy, remarked that this was the first time such a procedure had ever been attempted.—*Brit. Med. Journal.*

At the Ninety-seventh Annual Convention of the Connecticut Medical Society May 23, 24, 1888, George R. Shepherd, chairman of the committee on matters of professional interest in the state made an extended report.

Albuminuria.

Extensive statistics had been compiled by the committee, from examinations made upon supposed healthy men. Some 35,000 examinations were collected from Life Insurance Companies, and some cases through the officials at Washington, when examinations were made before and after exercise, etc., and the following general conclusions were drawn:

1. Albuminuria is much less frequent in the United States than in England, Stewart giving 31 per cent. as the general average, while ours, conducted upon a much larger scale, show but 2 per cent.

2. The brain-workers rather than the muscle-works show the largest percentage of albuminuria.

3. The urine of perfectly healthy people rarely shows albumen after food, while those who suffer from dyspepsia and oxaluria are very liable to show it.

4. Privation, scanty food and clothing with unsanitary surroundings, increase the liability to albuminuria.

5. Cold bath does increase the liability to albuminuria, though more notably so in case of dyspeptics.

6. Severe exercise increases this liability in a very moderate degree.

7. In the large majority of cases albuminuria is not associated with kidney disease.

8. In the matter of Life Insurance, albuminuria should be looked on as a symptom only, and acceptance or rejection of the risk should depend on the gravity of the cause.

9. The existence of any such condition as physiological albuminuria is extremely improbable.

This report, which was extremely elaborate, reflects great credit upon the committee, especially on its chairman, who was peculiarly qualified to investigate this question, not only by reason of his experience as medical examiner for a great Life Insurance Company, but from the unusual facilities which his official position gave him for collating statistics. It is a report which will be extensively quoted in coming literature.

The National Association of Railway Surgeons.

The preliminary meeting of this Association was held at the Palmer House, Chicago, Ill., on June 28, and was called to order by the chairman of the committee, Dr. C. H. Stemen, of Fort Wayne, Indiana, at 9:30 A. M., who said the principal object of the

meeting was for permanent organization. The further and additional objects of the Association were to bring the surgeons of the different railroads together annually to develop this special and rapidly growing branch of surgery, to report cases, to relate experiences, to exchange views, and to discuss the best means and methods of treatment in railway surgery.

The meeting was very largely attended, nearly all the prominent railway surgeons of the country being in attendence. Sixty-three railroads were represented. The Association starts out with a membership of 600, and promises to be one of the most active Surgical Associations in the United States,for some of the ablest surgical lights of America constitute its make up.

The Association elected the following officers for 1889:

President.—Dr. J. W. Jackson, Kansas City, Mo.

First Vice-President.—Dr. J. H. Murphy, St. Paul, Minn.

SecondVice-President.—Dr. J. B. Murdock, Pittsburg, Pa.

Third Vice-President.—Dr. W. W. Ridenour, Massillon, O.

Fourth Vice-President.—Dr. B. L. Hovey, Rochester, New York.

Permanent Secretary.—Dr. C. B. Stemen, Fort Wayne, Ind.

Assistant Secretary.—Dr. J. H. Tressel, Alliance, O.

Corresponding Secretary.—Dr. E. R. Lewis, Kansas City, Mo.

Treasurer.—Dr. J. Harvey Reed, Mansfield, Ohio.

Next place of meeting St. Louis, Mo.

CORRESPONDENCE.

ANTIPYRIN IN CHORDEE.

Henderson, Ky., June 25, 1888.

I wish to call the attention of the profession to the use of antipyrin in cases of chordee. Given in doses of fifteen to twenty grains, in a wine glass of water, just before retiring, it has effectually relieved all symptoms in three cases. In only one case was it necessary to repeat the dose during the night. While one swallow does not make a summer, nor three cases of chordee relieved by this remedy, prove it a specific, yet it seems to be worthy of a further trial, which I hope will be accorded it.

Arch Dixon.

BOOK REVIEWS.

The Applied Anatomy of the Nervous System, second edition, rewritten, enlarged and profusely illustrated. By Ambrose L. Ranney, A. M. M. D., Professor of Anatomy andPhysiology of theNervous System in the New York Post Graduate Medical School and Hospital; Professor of Mental and Nervous Diseases in the Medical Department of the University of Vermont; Fellow of the New York Academy of Medicine, etc., etc. Published by D. Appleton & Co. Cloth $4.00.

It is not to be expected that a general practitioner shall keep himself thoroughly posted in regard to all the diseases to which flesh is heir. This would be impossible. But it is essential that he shall know something of all the diseases that he assumes the responsibility of treating, and more than this he should have at his command literature to which he may refer for information in regard to such obscure cases as he is not familiar with.

Dr. Ranney's Applied Anatomy of the Nervous System fulfills the indications for which it was written, "a text-book and a work of reference." The clear and systematic manner in which the subject matter is presented, together with the numerous illustrations make it an excellent text book, and the fact that it contains much from the latest and best authors upon this subject; the beautiful type in which is is printed, its excellent table of contents, and complete index make it a book that will be of great value to the busy practitioner.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 3. ST. LOUIS, JULY 21, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

DERMATOLOGY.

BY W. G. MOORE.

I. HYGIENE OF THE SKIN.
II. TREATMENT OF ECZEMA, IVY POISON AND HERPES.
III. PHENIC ACID TREATMENT OF VARIOLA.
IV. THE CONTAGIOUSNESS OF CANCER.
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HYGIENE OF THE SKIN.

In order to fully appreciate the importance of proper care of the skin it is necessary to reflect upon its functions in relation to the other organs of the body. It is the envelope which covers the entire external surface, and has its analogue in the mucous membrane which sustains the same relations internally with exactly similar parts to play iu the conduct of the physiological state.

It is well also to revert to its general anatomy and physiology, to better comprehend the meaning of the slight disorders that are of such frequent occurrence, and create oftentimes so much annoyance to persons sensitive about their complexions, as well as to physicians who are called upon to remedy these departures from the normal.

Let us view the skin from its most important standpoint, viz., that of a great organ of sensation, absorption, secretion and excretion. In order that there may be sensation, there must be cutaneous nerves, and these very nerves, with all their delicacy, furnish us the first suggestion for the proper care of this "integumentum commune." For if these nerve filaments, which are but the distal extremities of the great nerve centers themselves, are subjected to irritation from any source whatsoever, the amount of constitutional trouble which will necessarily follow is in direct proportion to the amount of irritation, thereby not only disturbing the functions of the sudoriparous and sebaceous glands, glands resident in the skin—the openings of whose ducts upon the surface form the pores about the care of which the laity are always solicitous—but also are sufficiently far reaching in their influence to produce congestions and inflammations of any and all of the secreting organs of the body.

Having thus briefly referred to the physiological importance of the skin and some of the results of the derangement of the same, it is now proper to consider the anatomy before proceeding to give the best means of caring for this all important organ. I say all important in the sense that we speak of any vital organ, one which is essential to life.

The division of the skin into three layers or strata will be sufficient for our purposes of review, without subdividing into the microscopical primary layers going to form the three great strata. The epidermis, or corneous layer (horny layer) as it is called, is the external coat of scales superlying the corium or true skin containing the blood-vessels, nerves, muscular fibers and glands. It is the direct medium between the skin proper and the external world; it is the first to receive atmospheric influences whether of heat or cold. Sensation is acute or obtuse as the epidermis is thin or thick. Nature provides for these necessary changes of temperature in animals by causing them to grow long coats in winter and shed the same in warmer

weather. There is a constant exfoliation going on in these scales of the epidermis in order that the highest state of vitality may be always present to insure perfect functions of the skin as far as possible.

That these ends may best be met cleanliness is one of the first considerations. I am sure, however, that among many well bred people this very cleanliness, which is "next to Godliness," is often carried to an injurious excess. How can washing the skin prove injurious? First, by the use of strong alkaline soaps, which not only destroy the epithelial scales, but by so doing expose the cutaneous nerves, extract the oleaginous secretions whose function it is to keep the skin supple, stop the functions of sweat glands, etc. In short, the extreme may be seen in badly chapped hands which is the result of too much washing, too much change of temperature; consequently contractions of muscular fibers, deepening the natural sulci which mark the depressions between papillæ of the corium. Should the injury not go to this extent, but simply block the egress of the perspiration, we have, as a consequence, an elevation over the site of the sweat ducts, called sudamina; the skin, instead of being soft and pliable, is harsh and with roughened surface, looking as if fine meal husks had been scattered over it. Cold bathing is oftener injurious than beneficial. And bathing of no kind should be continued too long at a time lest the epidermis be macerated unduly. It is a safe rule to regulate the temperature of the bath by the sensations of the bather, the object being to remove all accumulations from the glands and any extraneous matter that may have collected, besides giving the greatest sense of comfort. Frictions to the skin cause increased capillary circulation, and consequently, greater activity of the glands.

From what has been said above it will be understood that an equable temperature should be maintained as far as possible—changing the clothing to suit the climatic conditions. This is especially important as regards infants and young children for it is these helpless ones that suffer most from improper dress and the ills consequent upon it, as well as misdirected attention on the part of parents. The object in all our attentions is to keep up the normal activity of the glands—that secretion and excretion may go on naturally. How often is the physician asked if it is best to keep a child swaddled in flannels when the temperature is 100° in the shade? Few nurses, unless they have been trained in the modern schools, will consent to dress the new born child without first rolling its little body in several thicknesses of flannel before hand. And how often do we see feverish teething children in midsnmmer enveloped from head to foot in clothing sufficiently warm for midwinter, while their more fortunate parents are enjoying the pleasures of linens and seersuckers in the midst of perfect health.

The child, already suffering fever heat, is not only irritated by the hairy woolen garments, but the heat is increased and the evaporation diminished thereby, until it is tortured beyond the ability to rest. Young physicians are particulaaly chary about advising the removal of such dress lest some untoward complication arise from any cause whatever, and the censure fall upon them. But we conceive it the duty of every physician, however young, to correct every error that may be observed in the discharge of his duty. We particularly emphasize this during the hot months when children's diseases are so prevalent.

The object in bathing fever patients is two-fold: first, to preserve cleanliness, second, to reduce temperature by increasing evaporation and the elimination of morbid materials. Time was, and not very long since either, when it was considered nothing short of criminal to put a particle of water upon the skin of a scarlatinous child. And be it said with regret that even now there are many physicians who are so imbued with these erroneous ideas that they never permit the bathing of such a child, but rather prefer to smear them over with various unguents, to become decomposed, and not only stopping the outlets of the very ducts intended for the

elimination of effete materials, but also forming a nidus for every particle of dirt that may be afloat, as well as any germs that may fancy the location. That any reflecting man could prefer such a course to sponging with clean carbolized water seems incredible.

We have seen children with measles who never had their faces touched with water from the beginning of the attack until its close when they would appear as filthy as a Digger Indian—and all because of a fear of "driving the eruption in."

Such practices in the present light of medical science is a disgrace to any physician permitting them.

It is a singular fact that has been observed by all physicians, what a dread the laity have of the influence of air and water in almost every condition of disease, the two most important factors in their cure.

It may be stated as a fact that there is no morbid state that is not benefited by cleanliness of the skin, with one possible exception, eczema. Here the anatomical conditions are so changed by the morbid process as to render water an enemy to the disease.

The care of the skin in health may be briefly summed up as follows:

1. Cleanliness without undue destruction of the epithelium, either by strong soaps, too great friction with bath brushes, or too frequent or prolonged baths at any temperature.

2. The preservation of a temperature conducive to normal activity of the sweat and sebaceous glands.

3. A due regard to the secretions of the internal organs, without which neither the skin nor any other organ can remain in health.

In short, the proper hygiene of the skin necessarily means the proper care of all it contains, so intimate and inseparable is each from the other.

Treatment of Eczema, Ivy-poison and Herpes.

Dr. Charles H. Richmond, of New York, says he has uniform success in all forms of eczma in all stages, with an ointment composed of 20 grs. iodide of lead to the ounce of vaseline. It should be applied once or twice daily, and washed off every 48 hours to prevent rancidtity. The parts being dried quickly the ointment is reapplied. More frequent washing is harmful; the parts should be kept dry as possible. In the case of infants the ointment should be half strength.

Disorders of the secretions should be corrected, but he is of the opinion that special internal treatment is useless. He advises that sulphur ointment is often beneficial when the disease is on the scalp, and that in old indurated cases 2 to 5 grains of chrysophanic acid to the ounce is effective. Ordinarily, however, the lead ointment is all the local treatment required. He has never seen lead poisoning from the iodide, but advises caution where the surface is of any great extent.

Our readers will do well to give this a trial. While my individual experience has been quite limited with the lead iodide it has been satisfactory to a greater degree than almost any other agent. In the treatment of sore nipples I prefer it to any other remedy.

2. Poison from rhus toxicondendron, is best treated by the application of equal parts of fl. ex. grindeliæ robustæ and water. A weaker solution is often sufficient. It may be used in full strength.

3. Herpes; bromide sodium in 10 grain doses administered every three or four hours will ordinarily arrest the progress of an attack of shingles. The vesicles soon begin to dry and the raw surfaces to heal after its administration. Some forms of pemphigus will yield to the same remedy. Apropos to this, I am reminded of a case which recently came under my observation, and goes far toward establishing the true origin of herpes. Mrs. W., a lady nearly seventy years old, of rather feeble general health, was attacked with tooth ache in one of the lower molars on the left side. Dreading to have the tooth extracted she suffered day and night for more than a week before calling assistance. When I was asked to see her she complained also of severe pain along the source of the brachial

nerve, clear down to the fingers' ends. At this time there was no evidence of an eruption. I administered quinine and morphia with some relief to the patient. In a few days there was an abundant crop of herpes zoster, which ran the usual course despite the treatment with zinc-phosphide and the bromides as well.

Phenic Acid Tteatment of Variola.

In the June, '88 number of the *Journal of Cutaneous and Genito-Urinary Diseases*, we find the following interesting article. Dr. Montefusco, of Naples, during the last two years when small-pox has been so prevalent, had had excellent opportunity to test the value of phenic acid in this disease. He finds it valuable as a local application in calming the pains and exercising a beneficial effect upon the course of the eruption. It is, however, as an internal agent that he most praises the acid, the dose for an adult being one or two drams in the day, well diluted. The first effect is upon the temperature. After a half grain dose the temperature begins to decline and may go down two degrees. The number of heart beats being diminished at the same time, while the force of the heart's action is increased. This is the only remedy of the many tried by the author which exerts a sure influence upon the eruption itself. It both limits the extension and duration of the eruption. The quantity of pus is diminished and the period of suppuration is shortened. Even when the eruption is confluent this modification is evident. The pustules dry up in a few days and are never accompanied by extensive swelling of the subcutaneous connective tissue. Hemorrhagic small-pox is not perceptibly benefited by this treatment. The good results are attributed to the antiseptic properties of the drug.

There was no evidence of intolerance of the dose or toxic effects noticed, but on the contrary the general condition improved. Albumen in small quantities was occasionally found in the urine, which would become darker when exposed to the air on account of the acid contained therein. Nervous affections contra-indicate the use of the phenic acid.

The Contagiousness of Cancer.

Facts have already been presented which tend to prove that cancer is contagious. So far the evidence is presumptive but it is quite probable that in the near future but it will be changed to certainty.

Dr. Budd writes the *Lancet* that a patient of his who had epithelioma of the lip and refused operation, owned a terrier dog that was in the habit of licking his face. The dog contracted the cancer of the tongue and died before his master. Dr. Clemon has seen in the Royal Hospital at Liverpool a patient with cancer of the penis and testicles, which was most likely contracted by sexual intercourse with his wife who suffered from cancer of the cervix uteri. A case is reported of a lady having cancer of the neck of the womb and vagina, who was nursed by a robust servant, who washed all the soiled linen. Six months after the death of the mistress, the servant was received into a hospital with cancer of the axilla of which she died.

Vaccination in the Harem.

The following account is given in the *Indian Medical Gazette*, of the vaccination of 150 women in the Sultan's Seraglio at Constantinople. The operation took place in a large hall under the supervision of four gigantic eunuchs. The officiating surgeon,an Italian, was seated behind a large screen with a hole cut through sufficiently large to admit an arm. The women were concealed on the other side, and in this manner arms of various colors and sizes were presented to the operator. It was utterly impossible for the surgeon to get a glimpse of his patients, but in order to guard against the chance of his even looking through the screen two eunuchs stood by with a shawl,which was thrown overthe face of the surgeon each time the operation was completed, and did not remove it until the

next arm was placed in position. "To what base use are we returned Horatio." Think of a man dignified by the title—surgeon—sitting down and allowing a shawl to be thrown over his head an hundred and fifty times, in order that he might be given the opportunity of vaccinating the queens of the Harem.

Perhaps he was ordered by the Sultan and had to obey. We gladly put this construction on it for the sake of the dignity of the profession, and rejoice anew in being an American citizen.

ORIGINAL ARTICLES.

INFANTILE TUBERCULAR MENINGITIS.

BY DR. I. N. LOVE.

Read before the Medical Press Association, St. Louis.

M. M., aged 7 months, came under my observation Feb. 20, 1888, presenting the following:

Previous History.—When born was an unusually well formed, well developed female child with surroundings and conditions most favorable. For five months she improved daily, and nothing occurred to arouse the anxiety of her more than usually intelligent and conscientious mother. At this time the mother ever on the alert fancied that there was something wrong with her baby, she knew not what. It was above the average in brightness and intelligence, but the anxious maternal eye discovered a hitch somewhere in the physical condition of her child.

Her physician was summoned, and after examination thought possibly the child was not getting a sufficient amount of nourishment from the mother's breast, and so ordered an occasional allowance of cow's milk in addition. His services were requested from time to time, but he was disposed to make light of the trouble, and finally informed the mother that the child was all right and her fears groundless.

No special symptoms were observed or noted by the mother other than that she thought her baby while still bright and precocious, was occasionally heavy and oblivious to surroundings, and now and again nervous and easily disturbed and fretful.

It would infrequently "throw up" its food, particularly the cow's milk, but not enough to suggest stomachic irritation.

Her medical attendant was disposed to "pooh pooh" her nervous fears, but she could not rid her mind of a dread that her babe was doing badly, and about Feb. 10, a homeopathic physician was called into the case. At this time the child's most prominent symptom was a pronounced sleepiness, being in fact asleep almost constantly.

The new attendant gave it as his opinion that the child was insufficiently nourished, that the food as given was not assimilated. His attention was drawn to the fact that the child was constipated, occasionally vomited and slept constantly day and night.

He changed the food to "malted milk," did nothing for the constipation (considering that unimportant) and attributed the sleepiness and nervous irritability to weakness and impoverished blood. The anxieties and fears of the parents and other relations continued, and feeling that the attending physician did not grasp the seriousness of the case, at noon Feb. 20, he made his last visit, having informed the parents that the baby had no fever, the axillary temperature being normal.

At 3 p. m., I was employed to take charge of the case, and upon examination I found the following conditions present, and after stating them will give the notes of the case as it progressed.

The child was sound asleep, and a good opportunity was presented for examination of the conditions devoid of excitement. The respiration seemed almost normal, but an occasional long drawn sigh was observed. The pulse was slow, ranging from 90 to 100 and somewhat full, but irregular, being ninety during one minute and possibly 104 the next. The surfaces of the body were cool. A shiny, glistening appearance of the scalp was observed, the superficial veins of the same were markedly full and distended,

and owing to the unusually fair and beautifully transparent complexion they presented a very decided and emphatically blue color.

The expression of the face while indicating torpor presented a mild suggestion of a frown etween the eyes and across the forehead. here was increased pulsation and fulness of t e fontanelle. Inquiry revealed the fact that the bowels had not been evacuated for four days. Upon introducing a Hick's thermometer into the rectum, the child was only slightly disturbed, and then the frown upon the face was intensified, she immediately dropped off to sleep with the thermometer in situ. The temperature marked $101^2/_5°$. Having carefully and fully observed the child sleeping I examined its pupils and found only slight response to the irritation of light and that irregularly, the left one being less responsive. I then awakened the child and took her in my arms, found that she resented the disturbance in a fretful way, giving a sharp cry, and evidence that handling her roughly caused discomfort, the frown upon her face being more decided, and the right hand being repeatedly rubbed against the right side of the head, the mother remarking that she had noticed this before.

The tongue was slightly coated and the mouth free from moisture, though there was nothing to suggest gastro-intestinal irritation, everything pointed in the direction of inactivity of the glandular system.

Taking into consideration the record of the case as given and the existing conditions there was unquestionably present serious cerebral disturbances. The next thing to establish was the cause of the trouble, to be followed by a definite diagnosis and prognosis.

Questioning discovered the fact that while the father and mother were both comparatively healthy, the former had lost two sisters at the periods of their development into womanhood, the one dying of acute tuberculosis, the other of a slower form of pulmonary tuberculosis. Upon the mother's side there was clearly established (through evidence given by her mother) a history in her father's family of "consumption."

The diagnosis as given was cerebrel miningitis probably of tubercular origin, and the prognosis most unfavorable.

The first indication was to secure a thorough opening up of all of the secretions. To this end minute doses of the mild chloride were given every hour for twelve hours followed by an enema of a dram of warmed glycerine resulting in several quite liberal evacuations, each and all evidencing good digestion. I forgot to observe that a close examination of the child's body did not disclose any marked amount of wasting, in fact it presented the appearance of being fairly well nourished.

A large sized photograph of the child taken at five months showed it to be unusually bright and intelligent, and while not a fat and lusty baby it was a "well doing" child: its beaming and sunshiny countenance was in marked contrast with the frowning, heavy torpid visage now presented to view.

The mother was instructed to confine her child to the product of her own breast, as there was no indication of insufficiency, and the child nursed fairly well at intervals of three or four hours. Ice cloths were directed to be placed upon the head.

Feb. 21, 10 A. M. Temp. 101°. Pulse 110°, not quite so full, but still irregular, no change in heaviness and sleepiness. Small doses of ergot (5 drops of O. W. L. extract in teaspoonful of elix lacto-peptone) were given every three hours for the purpose of reducing the engorged condition of the cerebral vessels and in addition one grain of the iodide of potassium.

Five P. M. Temperature $102^1/_6$. More disposed to restlessness. Motor paralysis of the left side now observed. Strabismus of the left eye.

At each succeeding visit morning and evening the temperature gradually increased the symptoms all become aggravated. Occasionally there would appear to the watching parents an apparent improvement but it was not real. On the afternoon of Feb. 24, the temperature arose to $104^4/_5°$ and of course it was evident that the case would soon terminate.

At 3 A. M. Saturday, Feb. 25, the child died. One hour before death the rectal temperature marking 107°.

REMARKS.—Recognizing fully the fact that the physician who is called later into a case, after it has been more fully developed, has a more perfect picture presented to view than the ones called earlier, yet I am impressed with several facts by this case. In the infant unpronounced symptoms frequently do not receive sufficient consideration at the hands of the attending physician, and often the observations and conclusions of an excessively anxious mother or grandmother are ignored when as a matter of fact they should receive our most thoughtful attention.

An underfed child frets and cries constantly day and night—emitting an indescribable "hungry cry" and presenting in the earlier stages a hungry unsatisfied expression of face and later an anxious hunted down, old womanish look, the angles of the mouth drawn down, and when accompanied by indigestion and gastro-intestinal irritation the cry is characteristic in that it is almost constant and energetic, not sharp, spasmodic and metallic as when the disturbance is cerebral. Constipation too is not apt to be present and the tongue and that part of the face which surrounds the entrance to the alimentary canal present features that cannot be mistaken. Then again the muscles and tissues of the body of an undernourished infant speak in a "language that's plain," their flabbiness and wasted appearance emphatically express hunger and thirst on their part due to non assimilation of food.

An infant presented whose temperature is not taken by the physician and that in the rectum is neglected. A continued elevated temperature, even if it be only one or two degrees forebodes danger.

A dull countenance in a child previously possessed of a bright cheerful and intellectual face should direct the thoughts of the attending physician to the brain.

As a means of aiding us in our diagnosis of a patient's case a recent photograph which is a good likeness will often be of service to us, and where we have had no previous acquaintance with the invalid all evidence is important.

A complete knowledge of the family history is important, and where it is tubercular this in itself should direct our attention to the child's brain, as a large percentage of infantile tuberculosis takes the meningeal form, and while my experience does not corroborate the statement, Henoch says, "Tubercular meningitis is one of the most frequent fatal affections of childhood. Strümpel says children are very prone to the disease.

An irregular and fluctuating pulse (not necessarily rapid), one easily affected by motion of the body and other causes, showing a variation within a few moments, of ten or twenty beats, betokens central nervous lesion. An over filled condition of the superficial veins of the scalp and forehead can point in but one direction.

While the disease is almost necessarily fatal yet the advantage to all concerned of an early diagnosis and correct prognosis is apparent.

DISCUSSION.

DR. A. H. MEISENBACH.—There are several points in the case reported by Dr. Love, that are so striking that I am sure any man who is posted in the literature and diseases of children could diagnose the condition. The first one is that of turgescence of the veins of the head. Whenever I find a young child with the veins of the head full, I always look at the case with suspicion. There is imperfect circulation of the part, and my mind reverts to one of two things, either hydrocephalus or tuberculosis. And where there is previous history of tuberculosis, there is almost a certainty of tubercular trouble in the meninges or in the lung. A great many of these cases do not commence with symptoms alone of gastro-intestinal irritation, but they commence with symptoms of capillary bronchitis, the first being cough, fever and, in older children, expectoration, and with this condition there is absence of marasmus. There is more or less marasmus after the failure of assimilation of the food. The dif-

ference between the expression of the countenance of the child with the gastro-intestinal trouble and of that one with the cerebral trouble is marked. In the former, the symptoms are always referable to the face, and especially at the insertion of the levator angula oris it produces an expression of age, whereas, when the brain is affected, there is a tendency to the closure of the eye lids and contraction of the corrugator supercilii muscles. Other conditions are irregularity of the pulse and respiration. At times the latter is sighing and deep and again rapid, hurried. Much can be learned from the crying of the child; there is the peevish cry, the cry of pain, and the cry of intense mental suffering, as for instance in the young child to whom I was called on Christmas eve. At the delivery, which took from nine in the evening to ten o'clock the next morning, I had to apply instruments. The woman had a contracted pelvis, and in order to deliver the child I had to use a great deal of compressing force. The perineum was ruptured. I had the pleasure of delivering a perfectly healthy and normal child, I thought, until the next day, when there was hemorrhage from the ear, which did not cease as it should have done had there been a rupture of a vessel in the external auditory canal. The suspicion came to my mind that I had fractured the base of the cranium, and the outcome of the case proved that I had done so. Acute meningitis set up, and the cry of the child was different from any that I had ever heard. The temperature in acute meningitis at first is high, later it may drop to normal. These cases are instructive,and it only takes close observation to discriminate between the two classes. In diagnosticating, I classify the regions. I commence at the top and go downwards; interpret the symptoms as presented by the face, and then those by the chest and abdomen. The symptoms as presented generally cannot be very easily misinterpreted. Of course some of the minutiae may be. I think in this case Dr. Love was correct.

Dr. Y. H. Bond.—The temperature is probably to a greater extent than any other one symptom an indication of meningeal trouble. In the beginning it runs quite high, but after the expiration of a day or two it usually falls, and yet remains above the normal point, and that fact in conjunction with other symptoms—the alternation of stupor with periods of excitement, usually coming on in the evening when there would be a slight elevation of temperature, but no such elevation as we observe in malarial fever with other symptoms, has been my guide in the diagnosis. There are so many symptoms in children that impress one who is in the habit of observing them and yet it is impossible to describe them. For that reason, when I am consulted about a sick baby, I am always desirous of seeing the child,as the parents cannot convey to me a clear idea as to the condition of things. A similar case which I referred to Dr. Love impressed me on account of the peculiar manifestation, that of putting the hands to the head: it was an act that was so like the act of a grown person and clearly indicated that the child was suffering. I believe it is our duty,when our minds are not running in a special channel to refer cases to those who do pay special attention to them. Whenever a doctor consults the interests of the patient by referring them to those gentlemen who are most competent to treat them it is appreciated.

Dr. Wm. Porter.—It was mentioned by one of the gentlemen that in many of these cases there was, as an accompanying evidence of meningeal trouble,great disturbance of respiration and notable symptoms of bronchitis. While that may be due, to some extent, to meningeal disturbance, often there is also a tubercular pulmonary condition. In a certain number of cases evidences of pulmonary disturbance do not lessen but increase as the tubercular symptoms increase, and we notice dulness and just such symptoms as would occur in a tubercular condition of the lungs. In addition to this there is meningel disturbance, so that it is not well to say that always the disturbance is due to meningitis, but it may also be due to the lung complication.

Dr. Meisenbach.—If there is meningeal tubercle of course there is a tendency to such trouble in the lungs.

As to the means of taking temperature in children, there are a great many physicians who pay no attention to that because they can't put it in the mouth, can't take it in the axilla, and their modesty prevents them putting it into the rectum where it ought to go.

Dr. Bransford Lewis.—Apropos to the remark of Dr. Love that one generally does not pay enough attention to the fears of the mother, I will relate a case that occurred during the recent diphtheria epidemic. A little boy complained to his mother in the morning that he was troubled with a soreness somewhere connected with his throat, as he said, similar to that which had preceded a previous attack of diphtheria. The mother, although finding nothing on examination, was greatly alarmed, and sent for her family physician; he came, examined the throat, looked serious, and left orders for a gargle and the administration of medicine three or four times during the day—all of which did not, of course, allay the fears of the mother, who was then entirely certain that her boy was the subject of diphtheria. Late in the afternoon the boy was more explicit in giving the location of the discomfort; said it pained "right around here," pointing to his neck. A more careful examination then showed that the cause of the tempest was the rubbing of his neck by his collar. Medicines and gargle were discontinued, and nothing more was heard of the diphtheria.

Dr. Love.—The discussion has opened up many avenues of thought to me. Dr. Meisenbach has gone over a number of diagnostic points, and has well emphasized them. I cannot close without giving expression to my emphatic endorsement of the rule of always taking the temperature in a child. The vasomotor centers are easily disturbed, the skin may be cold and clammy and yet there may be marked fever present. The temperature is of far more importance than the pulse, which is of very little importance as regards frequency. The temperature is something which the temporary condition of the child cannot affect. The proper course is to take it in the rectum. The next best way is by the groin. The straight thermometer should always be used. The thermometer having been greased, it is introduced into the rectum without disturbing the child.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 Locust Street, St. Louis, Mo.

SATURDAY, JULY 21, 1888.

A Railroad Spike in the Brain.

The *Phil. Med. Times*, July 2, 1888, contains the report of a remarkable case of injury to the brain. Dr. John D. Blake, of Baltimore, the author, has given a very imperfect account of his case; yet several interesting lessons may be learned from it.

The patient, a German, 67 years of age, left his home at 6 A. M., June 15, and was brought back at 4 P. M. in a wagon by two young men, who stated that they found him sitting against a pillar of a railroad bridge outside of the city limits, crying, and that he begged them piteously to take him to his home, telling them correctly the location of it. With slight assistance he got into their wagon. When they arrived at his home, 45 minutes later, he was unable to get out of the wagon, and could not walk when assisted to his feet. The family thought that he was prostrated by the heat. Soon after he was put to bed he raised himself on his elbows and asked for a drink of water. He drank then and frequently during the night without apparent difficulty in swallowing. He also took something to eat which was easily swallowed. On the following morning (June 16) he was, according to the account of members of the family, very stiff, unable to raise himself on his elbows, and talked as though his tongue was thick. The stiffness increased throughout the day. In the afternoon he became stupid and drowsy, and could hardly be understood when he spoke. He voided his urine unconsciously. On the next morning

(June 17) he was much worse, and the family becoming alarmed, sent for the physician. Shortly before the doctor came, the family found a peculiar foreign substance partially buried in the scalp. This the doctor removed with a strong forceps and considerable difficulty. He found it to be a railroad spike, three and one eighth inches long, and three-eighths of an inch in diameter, that had been driven almost perpendicularly through the skull into the brain.

"Following its withdrawal was a small quantity of offensive decomposed blood and serum, which I succeeded in getting rid of by arranging the position of the head and mopping with antiseptic absorbent cotton. The opening through the skull being sufficien tly large, I extracted several large spicula of bone."

A further examination revealed complete right hemiplegia. Sensation was nearly abolished on same side. The patient could not speak, but when it was suggested to him to answer by nods of the head he did so and showed that he understood what was said to him. In this manner he affirmed that he had no pain, that it did not hurt him when the spike was withdrawn. He recognized the spike. He knew he was sick. He knew his son and others. He constantly refused to nod when asked such questions as the following: "Did Mr. S., who went out with you on Tuesday, do this?" "Did you do it yourself?" "Did the men who brought you home do it?" "Did you fall from the bridge?" etc. At this first examination the doctor found his pulse 94, respirations slow, temperature 103.6°. He died June 21, at 2 A. M., the fifth day after the accident, the temperature having ranged between the above figure and 104°. The pulse kept, proportionately to the temperature, very slow until the 20th, when it and the respiration became very rapid. On the 19th and 20th he had several convulsions.

A post mortem examination revealed the following: The spike had entered the skull through the left parietal bone near the median line, and one and one-half inches from its junction with the frontal bone, passing obliquely downward and forward, entered the left hemisphere, just anterior to Rolando's fissure and sufficiently close to the longitudinal fissure to open into it all the way down to the corpus callosum. The spike passing through these fibres went into the lateral ventricle, the point entering slightly the ultraventricular portion of the corpus striatum. The skull-cap presents nothing unusual except the large hole through which the spike passed."

The spike was declared by experts to be a perfectly new one, and to have been driven in with a stone or some similarly rough substance. The manner in which it got into the unfortunate man's head seems to be a mystery.

This case teaches that no matter how severe an injury to the skull and brain we find, we should treat it with all possible care, as though we felt certain there would be a recovery. In this case the wound should have been irrigated, gently but thoroughly, with aseptic warm water, and then a tube introduced a considerable ways, or other provision made for complete drainage of the whole tract of the wound. After putting the whole head in an aseptic condition, an antiseptic dressing should have been applied.

Commenting on the case, the doctor says: "Why was there not from the first a decided interference with motion? The young man who found him says that he got up from his seat and got into the wagon with only ordinary assistance. When he arrived home he was stiff, but could use his limbs tolerably well. He could talk, swallow and chew his food. When I saw him two days after he could hear well and swallow comparatively well. * * * When we remember that voluntary motion has been traced to, and is supposed to be confined to that portion of the cortex known as the motor or central area of the brain, why is it that when we had a certainly large portion of it absolutely torn asunder and destroyed, the spike still resting in its substance, the man could walk, with little or no assistance, could use his tongue, as in asking to be brought home, giving his address, etc."

The description of the course of the nail and the amount of injury done by it in the different portions of its course through the brain is too imperfect to be at all satisfactory. However, we think had the doctor studied his case more carefully he would not make the above queries. Little enough is known about that particular portion of the Rolandic area destroyed by the spike; not so much as of that portion on the immediately opposite side of the fissure of Rolando, the upper portion of the ascending parietal convolution, and of the paracentral lobule, both of which latter regions were but slightly if at all injured by the spike directly. Also the point of the spike reached the basal ganglia by a route that did not disturb directly any known important motor tracts. It was some distance in front of that portion of the internal capsule traversed by the pyramidal tract. Hence the paralysis came on later, preceded by a spastic condition, and was the result of secondary accident, probably pressure from hemorrhage or serum, or cerebro-spinal fluid, and finally inflammatory changes.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

The cable announces the death of J. Milner Fothergill than whom no one in the medical profession was better known. His contributions to medical literature have been numerous and valuable. No one writer has probably accomplished more in the direction of arousing interest in the subject of dietetics than he, and how attractive his writings were upon all subjects! I can recall no one so worthy to rank with that beautiful word painter of our profession, Sir Thomas Watson.

Such deft and delicate demonstrators of the beauties of medical science as Watson and Fothergill, possessed of the ability to clothe the apparently dry and musty topics of pathology and therapeutics in a manner to command and control the attention of the world of workers about them, are rare indeed, and worthy of the highest tribute of praise.

J. Milner Fothergill was not only of great good to the medical world, but a joy as well

* * *

No nobler work of charity and humanity was ever undertaken than that of the Fresh Air Mission in large cities. In St. Louis the organization is in a thriving condition, and those who are carrying the burdens can rest happy in the consciousness that the duties claiming their attention border upon the Christ-like, for His whole heart and soul went out to the little ones. When He said, "Suffer little children to come unto Me," and "as ye do it to the least of My little ones ye do it to me," He pronounced a sentiment in behalf of a childhood which should be one of the directing thoughts of our lives.

The *St. Louis Republic* has given yeoman aid to the Mission and is deserving of all credit.

In New York City the leading, bright and breezy humorous journal, *Life*, is giving evidence in favor of the truth of the statement that wit and humor and laughter are akin to pathos and tears in the manner in which it is aiding the cause of the famishing babies of the metropolis.

In the last number, upon one page is a subscription list, representing over one thousand dollars, headed by a striking picture of a child, weak, wan and withered, and another round, ruddy looking and happy, labeled respectively "before" and "after" taking the benefit of the "Fresh Air Fund."

Upon another double page it has an artistically perfect presentment of the work representing upon one side a scene of squallid suffering in the crowded cities, slum, drunken mothers, fighting men and little weasened-faced sick children crowded together with dogs, dead cats, barrels of ashes and garbage, and upon the other page is delineated a restful rural scene, with rolicking, rough and ready boys and girls, little and big, climbing fences, picking flowers and rallying on the green, the cartoon having under it in large

type the following: "Three Dollars will do it."

On another page it says in a charmingly humorous way:

"Our cartoon this week tells an unvarnished tale. Its object is to assist our readers in realizing the good their subscriptions are doing. Every three dollars we receive means that another little child is taken from the hot, unwholesome street and from his yet more uuwholesome tenement, and sent out into the fresh air for two weeks of country life. No commissions or salaries of any kind come out of it. Every dollar goes directly to the purpose. Every fraction of a dollar means a fraction of a child. Fifty cents may represent, if desirable, a pair of lungs, or one dollar a pair of legs; and what better purpose can a dollar serve than by sending a pair of grimy, thin, half-nourished little human legs into the country to frisk in clover? Their proprietor may be unconscious of the debt he he owes you, but you will have made him or her very happy, and have rendered a lasting benefit.

Do no forget that three dollars will send a whole child!"

Go on, thou light-hearted, mirth-provoking *Life*, in thy beaming, genial, original and happy work. Thou art brightening and bettering the world every day in more ways than one!

* * *

Dr. Fuller, of New York, when he introduced to the profession the plan of administering medicine by tablet triturates, did it a noble service. They are convenient, pleasant, reliable and efficient, and if a physician elect so to do, he can carry about his person almost all that he needs in the way of drugs in his round of work.

* * *

It is a fact often overlooked by practitioners and patients that organic disease of the heart need not necessarily interfere with its possessors living a long, useful, comfortable and happy life.

We should remember that by the exercise of reasonable care, a guarding against sudden exertions, cultivation of an equable temper, a disposition to be temperate in work, habits, and life in general, a "knack" for taking the world with its worries easily, never unbottling the energies too suddenly, a victim of even valvular cardiac trouble need not have his career abreviated or impaired.

The life and death of Mr. Mathew Arnold, the great literary worker, is a case in point. From the *Brit. Med. Jour.* I learn that 25 years ago he consulted Dr., now Sir, Andrew Clark, and was told that he had valvular disease af the heart, but advised that if he exercised reasonable care it need not at all interfere with his career. For many years he rigidly adhered to the recommendations as to regimen and exertion which were given him, and it is interesting and encouraging to recall that all his serious work in criticism, education, and theology was done within the last twenty-five years. His reports and essays on middle-class education, the Essays on Criticism, Literature, and Dogma, all belong to this period. Such a life is a striking proof that heart disease, even of a type generally accounted serious—for Mr. Arnold had disease of the mitral and aortic valves—need not interfere with the labors or the enjoyments of a successful career, provided only that the limitations and moderate restrictions to which the individual must submit are frankly recognized. Emboldened by long impunity patients are disposed to come to believe that the precautions have been unnecessary, and relax their vigilance at the very time when the approach of old age renders all more or less liable to weakness of the heart. The Arnold family are a remarkable instance of family predisposition to disease of particular structures; the father of Dr. Arnold, of Rugby, Dr. Arnold himself, and now two of his sons, have all succumbed to chronic heart disease.

* * *

The value of the fluid extract of corn silk (extractum stigmatorum-maidis fluidum) in inflammatory and congestive disturbances of the bladder is very pronounced, and when the fact is recalled that of all diseases none is

more distressing, the remedy is to be appreciated.

The O-W-L preparation of the drug is uniform and reliable; as a diuretic it is unsurpassed, and taken in its purity in from one to two dram doses, it is quite agreeable, but may be combined with any syrup or aromatic desired.

In acute cases administer every two or three hours accompanied by liberal quantities of hot water, and if sleeplessness be present the addition of bromide and chloral to the prescription will be well.

* * *

The foregoing reference to hot water reminds me that on general principles, it is a good plan to give the most of our remedies in a soluble condition in small and frequently repeated doses washed down by a generous amount of hot water, not warm water but hot water. It aids the prompt assimilation and elimination of the drug.

In my judgment one half as much medicine will suffiice if given in this manner. or if we desire to give large quantities we can comfortably and safely give a much stronger dose without the danger of disturbance or cumulative action owing to the fact that the hot water stimulates all the excretory organs and the medicine is soon carried away.

It is questionable whether the bulk of the virtue of Hot Springs, Arkansas, does not lie in the temperature of the water rather than the chemical constituents.

* * *

Dr. A. Y. P. Garnet, of Washington, D. C., who presided so ably and gracefully as President of the American Medical Association at the last meeting is dead. He had not been of robust constitution for some years, but his presidential address was a strong and scholarly production and nowhere gave evidence of any lack of mental vigor.

Dr. Garnet was also chairman of the Committee of Arrangements for the Ninth International Medical Congress and will long be remembered by the profession of the world for his efficient service in that capacity.

His death is a loss to the city of Washington and the country at large.

* * *

At the recent meeting of the State Medical Society of Kentucky, Dr. Louis S. McMurtry, of Danville, one of the brightest and ablest surgeons of the state was elected president. Dr. McMurtry practiced his profession some years in Louisville where he filled a chair in one of the medical colleges. A few years ago he located in Danville one of the chief cities of central Kentucky, and the field where Ephrain McDowell performed a work which gave him undying fame.

There may be something in the atmosphere about Danville which is conducive to the development of skill in abdominal surgery, for Dr. McMurtry s chief work has been in this direction. He is also one of the editors of the *New Eng. Med. Monthly*.

He deserves the honor he has received and will no doubt reflect credit upou the position.

* * *

The well favored and winsome water melon season is now with us, and while we must arrange our armamentarium with a view to meet the many cases of cholera-morbus due to an improper indulgence in the succulent fruit we should not overlook its value,if properly selected, as a diuretic, and a satisfier of thirst in fevers. Nothing can be more enjoyable and cooling to the parched palate of a fever victim than the juice of the water melon. By the way a great many people are not aware of the fact that the time to eat the water melon is not as a dessert with the meal when the stomach is already overfull and the flushing of the food with a large supply of cold liquid is in every way objectionable, but between meals, at the hours of 11 A. M., 3 to 4 P. M., and in the the neighborhood of midnight when the gastric organ is untenanted and the cooling juice of the luscious fruit has the room all to itself, and the canal can drink it up with the same silent satisfaction that the thirsty denizen of the dusty city gulps down the merry mint julep at the club since the Sunday law is enforced, and the opportunities for the quenching of this thirst are limited.

The subject of internal hemorrhoids is an interesting one and of practical importance to every physician, particularly in sections of country where engorged livers abound. Dr. Edmund Andrews some years ago contributed in a very valuable manner to the literature of this subject, the field of his work being Chicago. The most recent brochure upon this topic comes from one of our subscribers, Dr. I. A. Shuford, of Tyler, Texas, with the title "The Hypodermic Treatment of Internal Hemorrhoids."

The doctor injects each tumor with one to eight drops (according to size) of the following:

Borax (chemically pure), one dram;
Glycerine, " four drams.

Mix and triturate thoroughly, then add a thoroughly triturated combination of salycilic acid, one dram, and four drams of glycerine. After complete trituration of the combined mixtures three drams of carbolic acid is added, and the resulting mixture is again well triturated.

A number of authors have recently given evidence against the hypodermic method of destroying piles, on the ground that it is not devoid of danger. Dr. Shuford evidently does not agree with this idea.

* * *

Dr. Frank L. James, of St. Louis, has long been identified with the medical press of the city, and has shown abilities of a very high order, but some months ago in addition to his other editorial labors he assumed charge of the *National Druggist.* The publishers are to be congratulated upon their good fortune in securing Dr. James for this work.

* * *

I observe through the columns of the press evidence that considerable time of several of the recent medical society meetings was taken up with the discussion of ethical and other topics which are irrelevant to the best interests of the profession, and I am more than ever impressed with the fact that every medical society ought to leave all of its business, ethical or otherwise, to committees and accept their decision, right or wrong.

Life is too short to justify one in attending any medical society which wastes its time in discussing other subjects than those which are scientific.

During the entire session of our medical organizations, let our motto be, "Work while it is day, and at night let joy be unconfined." Let there be no ethics discussed, no wrangles, only science and sociability.

* * *

Small-pox has had for some weeks quite a carnival in Moberly, Missouri, to which point Dr. Joseph Grindon an expert dermatologist of this city was summoned seven weeks ago. He has been in constant attendance upon the cases numbering altogether forty-five with only three deaths. At the close of his term of service the city government met in its official capacity, and after the firing of guns complimentary speeches were fired off in abundance, handsome souvenirs were presented him and figuratively and actually speaking they raised cane in his honor.

The doctor pays a glowing tribute to the value of hypodermic injections of $^1/_5$ grain doses of muriate of pilocorpine in small-pox to be given not earlier than the third day.

The rationale of its action in this disease is probably the same as when given in erysipelas as detailed in a paper presented to the Medico Chirurgical Society of St. Louis, something over a year ago, my experience with pilocorpine in erysipelas has been a positive and convincing one.

I consider it almost a specific for the disease.

SOCIETY PROCEEDINGS.

Stated meeting, Saturday June 23, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. Dorsett.—I have a specimen which shows a peculiar fracture of the acetabulum. The patient from whom this was taken was a sufferer from heart disease. There was a great deal of dyspnea, almost unbearable, so that the patient expressed herself as anxious to die.

The body was found on top of a portico under a window about twenty-four feet high. It had no bruises or contusions on it, but upon making a post-mortem examination the pelvis was found to be badly fractured on the left side; a very interesting fracture. It indicates that the woman jumped from the window, and alighted on the porch on her feet. The porch was examined very carefully; it was a tin roof, somewhat rusted, and there were abrasions on the roof which were about the size of the heels.

The specimen is interesting on account of its rarity. Most of the cases of fracture of this bone are caused by direct violence, being caused by the trochanter major jamming the head of the femur through the acetabulum into the pelvis. I presume the patient died from shock.

Dr. A. B. Shaw presented a patient and said: To avoid inaccuracy I have jotted down a few notes in regard to the case to which I desire to invite your attention this evening, and while what I have to offer will not amount to a paper, I trust you will not charge me with too great brevity when I am through. This case is one of a child from Illinois, twenty months old. Ten months and a half ago he had an attack of what was supposed to be fever. He became sick suddenly one night, and the next day it was discovered that his neck and all four extremities were paralyzed. He was in a perfectly helpless condition, while prior to that time he was perfectly well. The neck, the left leg and both arms were ultimately restored, so that they were in their normal condition prior to the time that I saw him.

The history indicates that originally it was a case of polio myelitis anterior acuta. When I first saw him, his general nutrition was good, the neck and arms were perfectly normal, so far as motility was concerned; the left leg seemed to be well developed, and he seemed to have perfect control of it.

The right leg fell limp and flaccid and was perfectly useless. The flesh was soft, flabby, and cold, and this limb was considerably wasted. The most careful examination with the Faradic current with the coil uncovered I should say with the secondary current, failed to produce any muscular contraction, whatever; at least none that I could perceive. This was tried on several occasions, perhaps a dozen times during the first three or four weeks of treatment; the galvanic current gave a negative result with the cathode closing and with the cathode opening and with the anode opening; only the anode closing would give any muscular contraction whatever; giving us then evidence of far advanced Wallerian degeneration in this paralyzed limb. I may say that the contractions that were produced upon the anode closing would not be produced every time that the circuit was closed. I would have to make three or four separate attempts before I could obtain a contraction, and after the use of the current in this manner for as much as a minute or a minute and a half, possibly in some instances two minutes, the contractions would cease. The current seemed to exhaust the power of the muscular tissue, completely tire it out, and it would cease to respond until the next day, when I would again get about the same results.

The treatment pursued in this case was a species of massage. I instructed the mother to knead the part; to squeeze the muscles; taking them up en masse here and there over the whole extremity at various points for a period of from one to two minutes four times a day; then to rub the limb well, using friction thoroughly. I told her she could rub it until she was tired. This was kept up faithfully. In addition to this I began with the continuous current, using it for about three minutes, placing the anode to the left lower extremity, the cathode to the right lower extremity, causing the current to pass through the spinal cord from left to right and obtaining the descending current in the affected limb. Then for a space of about eight minutes—this previous application lasting but three minutes—I used the interrupted current to the paralyzed limb alone, placing the anode to the lower portion of the extremity and the cathode above so as to get an ascending interrupted current. After treating the case

seven or eight days I observed a decided improvement. There was a continual diminution in the amount of response elicited by the interrupted current. I concluded to resort to static electricity. The experience I had had before in peripheral nerve troubles—paralysis from peripheral nerve lesions, had induced me to believe it possible that I might get good results. I was prepared for failure, but nevertheless made an attempt for two weeks: then I pursued this course, using the continuous current as before described for about three minutes daily immediately followed by a ten or twelve minutes' use of the static electricity, using what is called the induced, or by some the Faradic static current, that which is obtained from opening these lower sockets by opening the switch in this manner and separating the balls of the electrodes any required distance, the distance of the separation gauging the intensity of the shock that is given to the muscular tissue, because it gives rise to greater or less current as the distance is greater or less between these balls. After two weeks of this treatment the mother determined to go home, as she wished to see some other children that were sick. She returned to the city after an absence of about twelve days, and from that time until to-day, five weeks, making the time during which this static electricity has been used about seven weeks, with an interim of about twelve days in which there was no treatment; and we have results which I think are decidedly flattering, and justify us in predicting that this child will walk without the use of crutches, and probably without a brace, for the muscles from the knee up seem to be pretty well restored, and I think you will observe that while this thigh is not as large as that of the left limb, there is a decided improvement in its size to what it was four weeks ago. I find the longer I use this induced current the better is the response that is given to its stimulation, showing conclusively that there is not only increased responsiveness on the part of the muscular tissue, but also an increased susceptibility to the stimulation of the current.

I think this opens up a field for static electricity that has not beeu developed as it should have been. It has been hinted at, but it has not been developed. We as physicians have to improve the possibilities in the case. I think the use of the term potential is very great in reference to static electricity medicinally employed.

I tried to obtain contractions with the Faradic current, but I had no success. The galvanic current was applied from sixteen cells, with gallon jars and elements of proportionate size. I obtained a result only on anode closing. The strength of the continuous current was eight cells, deflecting the galvanometer fifty points. That is the current I have been using in this case.

Dr. Bauduy.—There are certainly numberless children ruthlessly sacrificed from the want of proper preparation and an understanding of the therapeutics of this disease, as well as from an ignorance of its pathological anatomy.

There are three diseases, which are essentially similar, not always so, but often so, and they are muscular atrophy, essential infantile paralysis, and paralysis in the adult. They are all protoplastic affections, and all have the same anatomical substratum. Now the essential differentiation, diagnostically, between these three protoplastic affections were very frequently, until a few years ago, confused with progressive muscular atrophy. I have made this mistake again and again, and as a proof of what I say, those who are familiar with Hammond's work will rememder the diagram which he gives of a very marked case of progressive muscular atrophy, that is now relegated to the domain of special paralysis in adults.

I say the anatomical substratum is the same in these cases. They are all the result of an atrophic or retrograde degenerative condition of the motor cells in the anterior cornua of the spinal cord and the vaso-motor cells are affected differently in these affections. In essential infantile paralysis, and paralysis in adults the affections are perhaps identical, the differentiation being perhaps in the affection

being in the child in one instance and the adult in the other. These motor cells, which are atrophied, are the cells which seem to preside over the nutrition of the muscles and joints, but in these two affections particularly the muscles are affected.

The skin is not affected except by the low temperature which is more or less marked in the early stage in paralysis of children and adults, but the low temperature is very characteristic of these two latter affections. It is more marked in the later stage when fatty degeneration occurs, and the case is beyond therapeutic aid. Charcot claims that after eight or nine months, if this low temperature be present the prognosis is become hopeless.

The essential clinical difference between the paralysis in adults, and paralysis in children in which these cells are affected, in which there is a development of the symptoms with rapidity of inception in the child or adult with slight fever, perhaps rigor, chill, then the symptoms are rapidly developed within a few days, where in progressive muscular atrophy the chronicity of the symptoms is peculiar, that is to say, instead of the symptoms being from the very inception manifested they become more developed as the disease progresses, chronicity being the essential nature of the development of the symptoms and the lesion of progressive atrophy will be intensified towards the termination, whereas the lesion in paralysis of children and adults seems to be established from the very inception of the affection. The mischief is done generally when when the physician is called in. In progressive muscular atrophy the disease is progressive. Then there is a diffusion of the pathology in progressive muscular atrophy which is peculiarly characteristic.

In paralysis in children or adults the muscles associated with enervation become very greatly interfered with in their nutrition, whereas in progressive muscular atrophy the muscles are attacked here and there, sometimes one or two muscles or a certain set of muscles, but they are affected symmetrically. I am very glad that Dr. Shaw has called our attention to this matter, because I think if there are any cases which are properly relegated to the specialist these are the cases. Nearly all the cases of this character within the last quarter of a century have been treated by practitioners who have not the slightest idea of how to apply electrical treatment, consequently the lesions become more and more progressive, the great majority of these practitioners forget the rule that a current which produces pain must do harm, and they invariably use the faradic current.

The characteristic clinical phenonenon of the paralysis of children and paralysis of adults is that in the primary stage of the disease during the first few months, you can not possibly produce any reaction or any muscular contraction with the Faradic current or induced current of Faraday. If the galvanic current be used, and if not too intense and slowly interrupted, you will find upon the anodic opening and cathodic closing, invariably an electro-muscular response, and the confirmatory proof of this is that as the child improves the galvanic electro-muscular contractility ceases. Then the Faradic current rent will be most proper and produce contraction, which it will invariably fall to do in the beginning.

I think it is a great misfortune that so many cripples, so many helpless cases of this disease fall into the hands of specialists when valuable time has been lost and the case becomes hopeless. If the proper applications are made in the beginning and the treatment is carefully followed, a cure will almost invariably follow, and Hammond says it is only a question of time as long as muscular contractility can be produced by the galvanic current; perseverence on the part of the parent and on the part of the patient is essential.

With reference to the new current to which Dr. Shaw has referred, I will simply state that I consider static electricity is a bubble which has been pricked. When the attention of the profession was some four or five years ago riveted on this subject by Morton, I became an enthusiast and bought a five hundred dollar polar battery which I

will sell to anyone in this society for twenty-five dollars. I feel just that way about its beneficial effects. I have made use of the new current towhich Dr. Shaw has resorted,which is by the induction of the electricity along the electrodes attached to the conducting rods, which is not after all an induced current, it is really a constant current with certain openings and closings of the current, producing certain interruptions. It is an admirable current in certain forms of paralysis, but it is clearly to be contra-distinguished from the static name of the frictional electricity. I believe there is an immense field in the future for the development of this current. It is very similar to the Faradic current in its effect. It produces muscular contractions, but they are more pleasant, less painful. I have never been an anthusiast in regard to this current and have not used it a great deal because I have always obtained the result desired in these cases by the continuous galvanic current.

Dr. C. H. Huges.—I would like to add my concurrence to the statements which have just been made here both by the author of the paper and by the speaker who has just taken his seat as to the necessity for prompt action and treatment in these cases and also that a too hopeless prognosis is generally formed of the outcome of polio-myelitis anterior in children, by the general practitioner. A case comes forcibly to my mind in the person of the child of my colleague Dr. Williams. The child was brought promptly under treatment some years ago and recovered perfectly. It was a typical case and one of those which in the earlier part of my career in this city gave me renewed faith in the value of persistent employment of electrilization and the value of hopefulness persistently adhered to by the practitioner.

Now polio-myelitis anterior is probably one of the most interesting affections that we encounter from the manner in which it comes on; often like a clap of thunder in the clear sky. It often attacks children who give us no premonition of the approaching trouble. It is the testimony of the best observers that is a disease which is not prone to attack children who are naturally unhealthy. While it follows certain exanthematous affections—certain febrile diseases, and seems to be a sequela of them, yet it is known as often to attack children who seem not to have these febrile sequelæ. And then the manner in which it does its mischief, suddenly producing the paralysis, contradistinguishing it from other forms with which we are familiar; having so seldom a period of invasion, but being prompt and rapid in its onset; the mischief being done almost from the beginning; and we have but to wait for a few days or a few weeks to see the beginning of repair; and if we wait in some of these cases we will see a repair take place which will surprise us by reason of the vis medicatrix naturæ, so that we may be led astray in our conclusions as to the value of our galvanic, Faradic or static treatment. It is not unusual, as you know, for the disease to affect the gray matter of the anterior cornu of the spinal cord and to affect the multipolar cells in groups; it is not unusual to see only certain groups of muscles affected; to see muscless affected in groups, and a few days after the onset to see a beginning of the reactionary improvement in children. It is rarely that you find permanent, complete paralysis in this affection. Recuperation often takes place through the processes of nature to a certain extent, and then the repair process is stopped as suddenly as the onset of the disease appeared, going no further, and you may treat your patient sometimes most persistently and without avail.

In the absence of opportunities for making post mortems in these cases there is a great deal of obscurity in regard to the incipient pathology of the trouble. However the few cases in which we have been enabled to make post mortems, in which the patients died from some other affection, such as diphtheria, enable us to locate the trouble in the anterior cornu.

It is a singular fact that poliomyelitis anterior in children confines itself to the anterior cornua, that it is an inflammatory process which attacks a section of the spinal

cord, attacking it as it does by preference. You know that the bladder or bowels are seldom if ever affected in these cases, and that the voluntary muscles are the parts of the organism which receive the morbid impress of this disease. After the violence of the attack has gone by you generally find that either an arm or a leg, sometimes both legs are implicated, but never an arm and a leg; at least that is so far as my observation goes and so far as I have read the literature. I do not think I have ever seen a leg and an arm affected on the same side and no other lesions involved in a case of poliomyelitis anterior. Then this reactive degeneration is one of those phenomena which become exceedingly interesting and which has led some persons to withhold the employment of electrization, which I consider is unwise. Simply because the muscles refuse to respond to the Faradic current and respond to the galvanic current, they think they must withhold the employment of galvanism as a precept which I consider not to be founded on good therapeutic reasoning. I have always employed a mild, constant current in the beginning and later employed a Faradic and the induced static electrization. No doubt a great deal of harm has been done the human organism not only by our profession but by those who brought electricity into disrepute in the beginning of the present century. You will recollect that John Wesley the noted founder of one of the greatest religious sects in the world was about as much of an enthusiast upon the subject of electricity, and he used to prescribe it about as freely and frequently as he prescribed prayers for his faithful followers. Benjamin Franklin was a man who advocated and brought into use electricity for all diseases; and with these empirical uses of this valuable therapeutic agency it passed into disrepute as agencies usually do when they fall into indiscriminate use in the hands of the populace. But that is no reason why we should be afraid to employ judicious galvanism in the beginning of these cases, and I think that the profession will take a more hopeful view than has been taken of the curability of poliomyelitis anterior and that they will not treat them themselves, but will relegate them to those who will take the time patience and care to cure them, and then we will have fewer cripples with withered arms and legs going about the country reminding the populace ef the inutility of medicine.

Dr. L. Bremer.—I heard the statement here from a gentleman that by the judicious application of electricity in the first weeks or first months of poliomyelitis anterior acuta there would probably be fewer cripples in the future than there have been under the old treatment, that is to say, the let alone treatment. Now I do not propose to throw any cold water or wet blankets on enthusiasm like that, even if it be of an electrical nature, but after weighing the electrical treatment, I have come to the conclusion that it is about as well to let those cases alone. I believe, in these days, there is a tendency to what I might call pernicious activity in medicine, and especially in electricity in these cases. Of course the relatives and parents of the little patient expect that something shall be done; the public and mothers especially want to see a performance; they want something to go on, and it is very hard, I admit to persuade them to acquiesce in a simple treatment by rest, in poliomyelitis anterior acuta. Looked upon in the light of recent researches it is analogous to acute infectious diseases; unquestionably it has the course of one. It commences with a chill and is attended with very slight fever; after a certain lapse of time the fever passes away and then the paralysis is the only result perceptible. In about six or eight weeks after the initiatory chill you can survey the situation and see what damage has been done. Whatever after two months after the inception of the disease does not respond to electricity, will never respond.

Dr. Hughes.—That is just the point I insisted upon; that is the time to continue treatment; to use the constant current.

Dr. Bauduy.—You are right about that.

Dr. Bremer.—The constant current and the interrupted current have been alluded to. I should like to know why in the use of the

constant current the anode is placed in a certain place and the cathode in another place. I should like to know if anybody knows? Everybody follows his own notion. Then I should like to know why, after the constant current has been employed for four or five minutes, the interrupted current is used for eight minutes? This is entirely an arbitrary matter. In fact everybody follows his own notion. Electrical physiology is certainly a science, but that science deals with muscles and with nerves that are laid bare, and it is admitted even by the most ardent and most advanced electricians that so far as practical electricity for the treatment of disease is concerned they have not derived that advantage and that enlightenment which was expected. We are just as much in the dark to-day, in spite of all our theories and attempted explanations, about the working of electricity as we were four or five hundred years ago. We can not say definitely that the anode has an anodyne effect and that the cathode has an exciting effect. And yet in some patients we find that not the anode subdues pain, but the cathode. In certain forms of neuralgia we find that all the rules that are prevalent are overthrown, and again in a great many others we find that one pole acts just as well as the other, and that is true in the majority of cases.

About 16 or 17 years ago I treated, in quick succession, three cases of poliomyelitis anterior acuta which I did not diagnose at that time, but in the light of my later experience I know I had to deal with such disease. Two of these patients, although paralyzed in all four members, got completely well without any electricity, and the other child had in due course of time club-foot. This made me sceptical, in after time, as to the great value of our treatment. These cases recovered through the power of nature. How are we to determine that we accomplish anything with the galvanic current, which is the only current that should be applied during the first two months in order not to do harm. Nobody can prove it, and besides that, physiologically it is erroneous. You commence at the wrong end. The trouble is in the spinal cord, the nutritive centres have been cut off from the muscles and the reparative process is interfered with, and in order to induce repair we put the parts at rest. It is the same principle that is applied to fracture. When you treat fracture you do not go about contracting the muscles, but you give them rest, and if you want to successfully treat a muscle which has undergone degeneration because it has been cut off from the nutritive centre of the spinal cord, you want to let the muscle alone and the muscless will take care of themselves. If the ganglionic cells have not sustained so much injury that they are ruined, the repair will go on and it does not matter whether we use the static, galvanic or faradic current, the stimulating effect will help the process of repair and growth and development of the new muscles, that is to say an impetus has been given to the ganglionic cells, to the motor or trophic ganglionic cells. Whenever a ganglionic cell is destroyed, it is destroyed forever, there is no such thing as a regeneration of a ganglionic cell. That is the great misfortune of man that whenever the highest cells become diseased, become impaired in their nutrition,they are almost sure to die, and they die forever; but the low cells in our body, connective tissue cells, bone cells, are easily repaired and reproduced. As I said, I do not want to interfere with the enthusiasm of the gentlemen, but I must say that I bought one of those instruments in New York. I saw one of them for the first time about eight years ago which belonged to a gentleman who brought it from Paris, having got it at Charcot's clinic, and he introduced it as a new therapeutic agent, and he claimed that he had cured typical locomotor ataxia with it. Well as I said I bought one of these machines paying one hundred and fifty dollars for it, and I will not sell it for twenty-five dollars, because it is a nice office fixture, especially on account of the bright brass work or the nickel work if it is finely polished, and it makes a tremendous impression on some people.

Dr. D. V. Dean—The remark has been

made that these cases should be sent to the specialist. We all know that it is not every man who hangs up his shingle as a physician who is a qualified physician, and so it is also true that every man who hangs up his shingle as aspecialist is not a qualified specialist, and we know that no man who has not a generally good, accurate knowledge of pathological anatomy can be qualified to practice as a specialist. Now I do not think a man is under any obligation to send these cases to a specialist unless he feels that he is not capable of properly treating them. I had under my care only a few months ago two cases of poliomyelitis anterior acuta, within one week, both from outside the city, and in one case I could give no other advice than to take the child back. The circumstances were such that proper treatment could not be applied here. In the other case the mother of the patient was an invalid and needed such care as would conflict with the keeping of the child in the city and treating it here, and there being an electrician in her neighborhood who I felt sure could apply electricity under proper directions, I had her take the child back home. After being under treatment for five months the child is decidedly improved, she is delighted with the improvement of the ohild. I advised her to have this electrician apply the induced current of static electricity and the benefit has undoubtedly been derived from this treatment in that case.

I think Dr. Bremer overlooked one point. He says when the electrical contractions will not occur there is no use to treat it. That is true perhaps so far as galvanic or faradic applications are concerned, but if by the use of static induced currents, contractions can be produced, I do not know of any reason why we should not use static electricity. Dr.Shaw has done so and if it is not a coincidence he has got a good result from it.

I hear a great deal about the instruments. Such instruments as this compared with later instruments bear no comparison. Results can be obtained with the improved instruments which can not be obtained with the older ones. I am satisfied from cases that have come under me own observation, and of which I have read,that there is a great future for this form of static electricity.

Dr. Bauduy.—I only have a few words to say. I have been so staggered, so profoundly astonished that I am in a condition of cerebral surprise. I am going to reply to Dr. Bremer and I then hope that he will make me a present of his magnificent battery for which he seems to have no use because certain effects can not be produced upon children with infantile paralysis. In the first place the doctor says that no progress has been made in electro-therapeutics, and that the science is in its infancy. I am astonished at the doctor. Electro-diagnosis is a science. I defy the doctor to make a proper diagnosis in many neurotic affections without electro-diagnosis. That science is not in its infancy?

Dr. Bremer.—I admit all that.

Dr. Bauduy.—Moreover the doctor has certainly misinterpreted me. I said, for instance, in the beginning of these cases to make use of the galvanic application; then apply for a few moments the induced faradic current. I said distinctly the induced faradic current could have no possible effect in the beginning of these cases. The electro muscular response would only occur in cases that were curable by means of the galvanic current, and unless you could produce a contractions of the muscle it was necessary to proceed with the treatment in the case, as it would be ineffectual.

If the ganglionic cells are destroyed, they are destroyed forever, but as long as you can get electro-galvanic contraction they are not annihilated and I am certain that Dr. Hughes has seen many of these cases which give a very slight response at first, improve; the improvement is gradual, it is progressive. They do not get well all of a sudden. Now why should we leave the muscles alone in a want of use and in a want of proper normal physiological activity? We use the electric current to cause contraction. What does contraction do? It causes an increase in the quantity of blood In the muscles and the further

progress of the atrophy which is comunicated by the degenerative changes which have a tendency to extend the trouble will to a certain extent be compensated for by keeping the muscle in a good normal healthy condition. By the use of the electricity blood is sent to the part, and it is nourished. I know I am right in thismatter. Then too, the profundity of the lesion is something that Dr. Bremer has ignored. I admit that where the ganglionic cells are destroyed we should let the child alone. The electrical science has made enormous advances, and I think the doctor is wrong in saying we have made no advances.

Dr. Hughes.—In the beginning of polio-myelitis anterior there is not a particle of evidence to show that the anterior cornua of the cord are atrophied. From the beginning of the onset of polio-myelitis anterior it is an inflammatory, a congestive trouble and we have no right to infer because we fail to get an electrical response that therefore vitality is absolutely gone; that death exists in the multipolar center. We have a congested condition always accompanying this state of affairs and the true therapy consists in applying the constant current in accordance with its well-known physiological power. We do know that the current has the power of contracting the arterioles of the cord and of the brain and of diminishing congestion. We do know that it exercises the positive power over the vaso motor organism, and it is to exercise that control, that the intelligent physician uses galvanism in the incipiency of these cases. If it were not for that fact, I would be as skeptical as the gentleman across the way. If I believed that every evidence of inaction of the muscles in the child indicated atrophy absolute and irreparable of the gray matter in the anterior cornua, then I would be induced to adopt the hopeless therapeutics suggested. I doubt the propriety of such a course in view of the fact that we know that nerve tissue is roproducable, that brain tissue is reparable and we have no right to take such a resource from our patients.

Dr. Bremer.—How about the multipolar cells; are they reproducable?

Dr. Hughes.—I say that the nerve structure is reproducable and that given a case of essential paralysis in children, there does not live the man who can say from any method of differential diagnosis that we possess that there exists also a state of atrophy of the gray matter in the anterior cornua and I defy any contrary proof from anybody anywhere or from any experience. It cannot be proved and we have no right to make that sort of an inference. We do know that in the incipiency of this disease it is essentially an inflamation and congestion and we do not know until the sequelæ establishes it to what extent reparation is possible. We have no right to make a hopeless prognosis and conclude because the patient does not respond to electrilization in the beginning that it will not take place afterwards, because experience has demonstrated over and over again that it does, hence I am not skeptical.

Dr. Bremer.—I have to protest against a misconception. I do not take a hopeless view of these cases, on the contrary I take a very sanguine view of them, but I take it that if the patient does not get better under the use of electrization it indicates that there is no recuperative power. The explanation of the doctor's success is that he got hold of cases that nobody had touched, where the muscles and nerves have not been stimulated to death at the improper time.

Then in regard to Dr. Baudy's recommendation that we send these cases to him I will say that I am too egotistical to do that, I keep them all to myself—I treat them and I suppose I get along with them about as well as anybody else.

Dr. Shaw.—I think Dr. Bremer is in about the same position in regard to electricity that I am on the subject of bacteria. I am decidedly skeptical, notwithstanding a great many competent men who hold a contrary view to me. Dr. Bremer said there was no difference between the poles.

Dr. Bremer.—I didn't say that.

Dr. Shaw.—I understood you to say that it made no difference which pole you used and that it made no difference in which direction you passed the current.

Dr. Bremer.—I didn't make any such assertion. My standpoint is that there is a very decided difference between the anode and cathode but that we have no positive rules to be guided by in the application of these two poles. In the first place the ascending and descending currents are antiquated and have been done away with, for no competent man believes in the polar action of the two kinds of electrization. But I say this that the application of electricity is very capricious and that where the anode ought to be employed very often the anode does not do but the cathode is successful. For instance in some cases of neuralgia that have been treated with indifferent success by the anode have been afterwards cured with the cathode.

Dr. Shaw.—I am coming to that very point. First in regard to the polarity that is established. We know very well that there is a difference in the ascending and descending current. I most unhesitatingly state that we will in one instance produce a condition known as anelectrodonus and in another instance catho-electrodonus. Now if we can produce these different conditions by using the ascending and descending current it shows that there is a considerable difference between them, and here comes the very explanation of the fact to which the Doctor has referred that neuralgia is sometimes cured by the application of the anode and sometimes of the cathode. If you have a congested condition of the nerves you will relieve the congestion by producing an anemic state and we know as a rule that neuralgia is but starvation of the nerve. If it be in an anemic state you bring about an anelectrodonic condition of the nerve and you relieve the neuralgia. It is not because sometimes one and sometimes another effect is produced by the same current that we succeed in these cases. It is because sometimes one is indicated and sometimes another. Now in regard to the destruction of the multipolar cell. There is an acute inflammatory condition; the next step after that is a granular degeneration, the next after that is fatty degeneration, then as Dr. Bremer has said the cell is destroyed. The question has been asked may it be produced? I don't say it will but I do take this positiou as we are supplied in our lungs with an innumerable number of air cells that we do not have to use in a normal condition of affairs; as we are supplied by nature with more than one eye, with more than one olfactory nerve; with more than one ear; with more than one kidney, it is reasonable to suppose that we have existing in the brain and spinal cord cells that are not brought into use in the ordinary condition of affairs; so to speak supernumerary, superflous in the normal condition, but the time arrives when as in a case of polio-myelitis there is a destruction of these cells whose peculiar function it is to preside over nutrition of the affected muscles; they become diseased and die, but possibly they are rejuvinated, reformed, or if they are entirely destroyed so that they cannot be reproduced it may be possible that some of these cells are brought into use which were not previously used. For instance I may want to go to Kansas City and I may know of only one road by which I can get there but if there should occur a great rain storm and wash out so that the road is destroyed I may look around and find another by which I can get there, I go around by some other way. So I believe it is with the nervous system not only in the spinal cord but in the brain itself, and I think I have indubitable proof of this in some cases of aphasia.

Dr. Bremer.—That is contrary to all pathological experience and experimental experience.

Dr. Shaw.—It may be to some, I don't think it is to all. I was very glad to hear the expressions of Dr. Bauduy, Dr. Hughes and Dr. Cremer in regard to the induced current.

SELECTIONS.

GUNSHOT WOUNDS OF THE ABDOMEN, WITH REMARKS.

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On the night of July 21, 1887, after the in-

gestion of a hearty meal of bread and milk at the close of a day of hard work and fasting, Augustus Bryant, a well developed and well nourished man, aged 25 years, received a gunshot wound of the abdomen. About one half hour after the reception of the injury the following conditions presented: Site of wound, inflicted by conical ball 44 calibre fired at short range in a direct line, was 5½ inches above the umbilicus and 1¼ inches to the left of the median line; skin cold and clammy; expression anxious; pulse small, quick and feeble; pain in epigastric region agonizing; patient restless and harassed by constant hiccough and nausea. Almost immediately after injury he vomited, presumably the entire quantity of milk and bread just eaten, plentifully mixed with blood; about fifteen minutes again vomited about one-half pint blood. Such symptoms I regarded as positive evidence of stomach wound notwithstanding the fact that it is claimed on high authority "that apart from ocular evidence, or that derived from the introduction of the educated finger, extravasation of the contents of the stomach is the only pathognomonic sign of the division of its walls." From the size of the wound necessarily made by so long a ball I suspected extravasation into the peritoneal cavity. The wound was not probed, having neither means of disinfecting my finger or instruments at hand; it was distant from my office, at night, and no help accessible. I was forced to forego surgical interference, applied cold compresses over the wound, gave a full dose of morphine, and left a number of half-grain powders to be given at intervals found necessary to procure absolute rest, intending to return with Dr. R. H. Day as early as possible in the morning, prepared to do an abdominal section.

We in the country, ambitious of professional recognition and dazzled by the brilliant success of metropolitan surgeons, occasionally attempt to ape them, despite the dinned dictum that a special skill and a rare technique possessed only by the few are an absolute requisite for success. So, early on the following morning, accompanied by Dr. Day, armed and equipped to do abdominal section under antiseptic precautions, I visited my patient. Found him quiet and comparatively comfortable having had a fair night's rest; temperature normal, respiration but little hurried and pulse much improved; in fact, his condition was such that Dr. Day unhesitatingly advised against surgical interference. More than twenty years of intimate professional association had taught me to value his counsel, and inspired a faith in his judgment, which neither the authority of contemporary peers or my desire to operate could subordinate. This unexpected favorable condition caused me to yield to my convictions more readily than is my custum, and while I suffered sore disappointment and was robbed of the anticipated and much coveted distinction of having done abdominal section, even had it been an unsuccessful one (for you know, according to good authority such cases are inevitably fatal without surgical interference.) I enjoy the fact that my patient made a good recovery, and perhaps due to the much criticised conservatism which attaches to "old fogyism" in medicine, and in this instance was an example of *laissez faire* which legitimately came of a long life of careful, intelligent observation and experience.

Patient completed recovery in about thirty-five days, and except an incident which occurred on the seventh day, and of sufficient importance to particularize, made steady, gradual progress, with temperature never exceeding 101° Fah.: strict attention was paid to position; only ice-water was allowed for first four days, after which milk constituted his sole diet; quarter grain doses of morph. sulph., hypodermically administered, were required about every six hours for ten days, to secure freedom from pain; bowels moved on twelfth day and dejection was free from extraneous matter.

On the seventh day it was thought desirable to empty the lower bowels, for which an enema of castile soap and warm water was ordered; the enema failing to act, a second and even a third was administered without

securing an evacuation. On the following morning I found patient complaining bitterly of pain in his abdomen, declaring that he had spit up a part of the soap and water that he had received per rectum. His bowels were distended, none of the fluid injected had been returned, his abdomen was tender under pressure and tympanitic, his temperature $103^2/_5°$. Is it not more than likely that a portion of the fluid injected reached the stomach by retrostalsis, taking up in its course only such alimentary substances as were soluble and absorbable by a serous membrane, entered the peritoneal cavity through the still patulous wound and caused the peritonitis just described? Was the sensation claimed to have been experienced a veritable one, the result ef actual contact, or a delusion, the effect of reflex action? That fluid may be injected through the colon, pass the ileo-cecal valve, traverse the entire length of the small intestine, enter the stomach, ascend the œsophagus and escape at the mouth, was long ago demonstrated by the illustrious Haller.

At our iast meeting at Alexandria I reported the recovery of four cases of shot wounds of the abdomen complicated with visceral lesions; they were reported with the view of eliciting discussion, because it occurred to me there did not exist that consensus of medical opinion necessary to formulate indications for their treatment; I was disappointed in that not a word was advanced on the subject, and for a likewise purpose I have submitted the present case. That there is a lack of agreement on the part of recognized authority, the following is evidence: In discussing the teachings of M. Legonest. "That it is necessary to assure ourselves immediately of the absence or presence of an effusion, and if the effusion is found to exist, it is proper to interpose by an operation. We should dilate the external wound by an incision, draw the intestines out and reunite the solutions of continuity by suture." Dr. Hamilton, in his Military Surgery, writes: "Be assured the patient will have a better chance for his life if we let hin entirely alone, and it surprises us that any good surgeon could think otherwise."

Again, Legonest writes: "When the perforation of the stomach gives rise to an extravasation of its contents, it will be proper to enlarge the wound in the abdominal parietes, remove the extravasation from the peritoneum, and after having revived the edges, reunite the solution of continuity in the organ by suture rather than abandon the patient to an eventuality almost always fatal."

Hamilton again declares that "the theory has nothing in it to recommend to our judgment, and no testimony of facts has been furnished to us to alter these conclusions," and after mentioning the cases of St. Martin and Bowes, which recovered without surgical interference, asserts: "We have thus far in our reading failed to find an example of gunshot wound of the stomach in which the patient recovered after the wound of this viscus had been closed by suture."

Bryant directs "that opium should be administered with nutrient enemata for some days."

Gross, in his systematic treatise, discusses this question as follows: "It is still a mooted question as to what should be done when the wounded bowel does not protrude at the opening in the wall of the abdomen, when we reflect upon the fact that in all lesions of this kind the greater danger is from fecal extravasation, and that such effusion is almost inevitable, even when the opening of the intestine is of very small extent; the duty of the surgeon, I think, plainly is to enlarge the abdominal orifice to seek for the wounded tube and sew up the cut in the usual manner. In gunshot wounds, no benefit, it seems to me, would be likely to accrue from such a course of treatment, as the bowel is pierced in a number of places, and the case on this account must, therefore, generally be fatal." I could furnish a long list of authorities holding similar views.

On the other hand, Guthrie declares, "The do-nothing system is generally followed by death." Wyeth, in his recent text book of surgery, teaches: "If an internal organ is in-

volved, the abdomen should be opened, the character of the lesion ascertained and the proper surgical treatment instituted. If the injury is followed by the vomiting of blood it is fair to conclude that the stomach or duodenum is involved. Abdominal section is not a difficult, or when skilfully or properly performed, a dangerous operation. A penetrating wound of the abdomen left without surgical interference is attended always with great danger. If any vessels of size are divided, hemorrhage is an immediate danger and always a serious and probably fatal complication. If the alimentary canal is opened death is inevitable. The few recorded cases of recovery form such an infinitesimal portion of the whole, that they should carry no weight against interference."

Martin, of Philadelphia, after an elaborate study of abdominal section for traumatism, having collected fifty-seven cases, concluded that operation is "clearly indicated in every case where perforation of the abdominal cavity is proven." Otis affirms that of the sixty-four cases of gunshot wounds of the stomach which came under surgical observation during the war of the rebellion, there was only one unequivocal instance of recovery; he doubts the existence of a single incontestable instance of recovery from gunshot wound of the small intestine, and adds: "I am free to assert that, when there is evidence that internal hemorhage or fecal extravasation is going on, what may be termed the 'ostrich plan' should be abandoned, and I believe that prejudices, similar to those that ovariotomy has successfully overcome in the last quarter of a century, will be dispelled by the results of explorative incision of gunshot wounds of the abdomen, before many years have elapsed."

In Greig Smith's recent and most excellent work on abdominal surgery, we find the following: "Under the best palliative treatment death almost inevitably takes place; if a desperate remedy is ever admissible in a desperate disease, it certainly is so in gunshot wounds of the abdominal viscera." Not long since this subject was under discussion at a meeting of the New York Academy of Medicine, prominent members took part and left the matter *sub judice.*

At the last meeting of the International Medical Congress, the first speaker on this subject stated, "that no operation should be performed until such time as fecal matter appeared at the external wound."

It is recorded that Abernethy was wont to say, "Nature will have nothing to do with wounds of the small intestines." Bell says: "We announce them as fatal." In searching the surgical literature accessible to me, I have been unable to find the records of more than five undoubted cases of recovery from gunshot wounds of the stomach, either with or without fistula, under palliative treatment, viz., the cases of Maillot reported by Baron Percy in 1794, Alexis St. Martin by Beaumont in 1822, the Prussian grenadier by Boudens in 1833, the case of Speed Culbertson in 1859, and that of private Bowers reported by Dr. Peters in 1864.

The only case of recovery from gunshot wound of the small intestine without laparotomy, of which I have any knowledge, is that of Foreman, reported by myself at our Alexandria meeting in 1887. This showing is not calculated to inspire faith in the efficacy of the expectant plan of treating gunshot wounds of the abdominal viscera, and I must confess that Kocher's success of 1883 of suturing a gunshot wound of the stomach in a boy, three hours after the receipt of the injury, the remarkable and successful laparotomies for gunshot wounds of the intestines by Dr. Bull, of New York City, one in 1883, the other in 1885, the equally remarkable one by Dr. Hamilton, of Washington City, for the relief of as many as thirteen perforations of the intestines, and the successes of Drs. Briddy, of Keysville, Va., and Kollock, of Cheraw, S. C., both achieved in negro cabins with all their unhygienic environment, have impressed me with the necessity of something more than the usual opium euthanasia treatment. Should surgical interference be determined upon, it is claimed by the most experienced laparotomists that section in the median line will give greater range and free-

dom for observation and operation, than the mere enlargment of the wound could afford; and, in my judgment, the site of the wound will determine choice of procedure.

The wound of the viscera discovered, whether its bruised, contused or lacerated edges be removed, involves another question upon which authorities are arrayed pro and con. Otis expresses the views of many when he writes, "I regard the refreshing of the bruised edges in gastrorraphy and enterorrhaphy as unnecessary. In the modern method of applying sutures to the alimentary canal, inversion and approximation of the serous surfaces is universally sought. In all gunshot wounds of the digestive tube which I have examined, the loss of substance is mainly confined to the muscular, connective and mucous tissues, the serous membrane remaining sufficiently organized to hold stitches. It will be sufficient to unite these surfaces, and what sloughing of the inner tunics there may be can discharge into the digestive cavity." On the other hand, Greig Smith speaks, perhaps, for an equal number, in asserting that "In every case of greatly contused or lacerated bullet wound of hollow viscera, it is wise to excise the bruised or lacerated edges; left behind, they will almost certainly suppurate or even slough."

Next, we encounter a like disagreement as to the number of tunics to be included in the suture, Otis believing with some that "sutures which perforate the mucous coat seem to have an incontestable value over those which do not," while others, with Dr. Howes as chief, claim "that the fact of entrance of the needle into the cavity of the tube carrying the thread with it, makes the difference between success and failure," cases dying from peritonitis and extravasation when the entry occurred, and recovery following when the thread only included the peritoneal and muscular coat.

My success in the case of Welsh, reported at our last meeting, in which all the tunics were included, seems to be confirmatory of Otis's view, and surely discredits the too absolute statement of Dr. Howes.

Of modes of suturing, there is no lack of variety. Bishop, in his paper on enterorrhaphy, mentions no less than thirty-three distinct methods, about one-half dozen of which are stamped with the imprimatur of success. The simple Czerny or Czerny-Lembert suture, will usually satisfy all requirements. Catgut seems preferable to silk, owing to the fact that it is less likely to act as a seton, especially if the mucous coat be included; its comparative want of durability and its ready solubility is not objectionable here, since only a few hours suffice for sealing up by plastic exudation.

Now, that the competency of sutures in wounds of the hollow viscera to prevent escape of their contents is established, the practice of fixing the wounded organs to the abdominal parietes should be abandoned; properly sutured and cleansed they may be confidently returned to the cavity as offering the best possible condition for their repair.

While I would advise the adoption of strict antiseptic measures in abdominal surgery, I confess that my faith in their absolute necessity is somewhat disturbed by a comparison of the results obtained in the services of Drs. Thornton and Bantock, acknowledged leaders in these two systems, now the subject of such bitter discussion in the land of Lister. Dr. Thornton, an orthodox antiseptician, even insisting on the use of the spray, regarded as unnecessary by many, and denounced as harmful by Tait and Keith; Dr. Bantock using no antisepsis whatever, boasting that when occasion presents he flushes out the peritoneal cavity with pure, but unmedicated water, with all its live stock. Both being on the staff of the Samaritan Free Hospital, their labors lying side by side, the results can be conveniently compared, and if there is any advantage in the difference, it is in favor of Bantock and his disregard for antiseptics.

All, however, agree that bodies which come in contact with the wound or peritoneum should be made thoroughly clean; that the doctrine of cleanliness be rigidly en-

forced in every particular. After operation has been decided upon, the least possible delay should be indulged, and it should be performed as near the place where the injury was inflicted as practicable, procrastination and transportation being potent factors in augmenting danger from the two principal sources, hemorrhage and fecal extravasation.

Should undue peritoneal secretion be apprehended (exudation usually being proportioned to amount of traumatism), drainage should be employed, and in case of doubt were always the wiser plan.

Should resection be required no part of the intestine should be left without mesenteric attachment.

In closing the abdominal wound some surgeons do not include the peritoneum in the sutures; notably among them is Koeberle who passes his sutures down to, but not through the membrane, claiming that by such a procedure he avoids the formation of parietal abscesses; others use two sets of sutures for the purpose, one to maintain in apposition the peritoneum, the other the remaining tissues; while still another class are content with one set, including the entire number of tissues.

In conclusion, I repeat that I have reported this case and made these remarks with a view of provoking discussion, in order that this Society might contribute its share in the solution of this problem in abdominal surgery.

There exists such a diversity of opinion as regards the proper indications for surgical interference in penetrating wounds of the abdomen as to render the surgeon's treatment open to the charge of malpractice. A large majority of shot wounds with which he has to deal are the result of violence exposing the attacking party to the grave charge of murder. Under existing laws of civil malpractice, the shrewd, intelligent, and persuasive advocate, crammed with medical and surgical superficialities for the occasion, privileged to exact such statements as will best suit his purpose, and that too from a partisan expert, under the law, any practitioner of medicine, (that is, any man who dubs himself doctor), adjudged as competent to furnish justice with the "best attainable evidence," will encounter but little difficulty in convincing a jury of men unable to estimate the weight and value of the evidence, procured by virtue of their utter ignorance of the whole subject, that death resulted from the surgeon's wound and manipulation rather than from that of the bullet.

When that consensus of medical opinion necessary to protect the surgeon against the charge of malpractice shall have been attained, now that the ghosts of peritoneal terror no longer haunt the abdominal cavity, having disappeared under the revelations of the gospel of cleanliness as interpreted by Lister and his disciples, fewer persons will be allowed to die without surgical effort to save them. The Fabian policy, as the best possible treatment, will then be a thing of the past, and death rendered doubly horrible by agonizing pain, harassing dyspnea from extreme tympanetis, intolerable nausea and disgust from fecal emanations, as evidenced by that peculiar physiognomy which can only be appreciated by seeing, will at least be robbed of these harrowing complications.

The only contra-indication for operation will be the almost inevitable death during the performance, and the surgeon will risk the condemnation of the profession for non-interference, rather than the penalty of the law for interference.—*N. O. Med. and. Surg. Jour.*

Dr. J. W. Milam, of Vincennes, Ind., writes to the *Amer. Prac. and News:* "In a large experience with anti febrin during the past four or five months, I have never discovered any evil results from its use. True, care has been taken to use it in reasonable doses, never more than ten grains. It is certainly a most reliable diaphoretic, and has never disappointed, having always reduced the temperature generally in thirty or forty minutes.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 4. ST. LOUIS, JULY 28, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

DIETETICS.—FOOD FOR INFANTS—FOOD IN FEVERS AND IN SURGERY.

BY J. H. M'CASEY, M. D., CONCORDIA, KAS.

Read before the Republican Valley Medical Society, held at Concordia, Kansas, July 10, 1888.

Food in conjunction with air supplies the elements requisite for growth and vitality. Man's energy, happiness and even goodness largely depend on his bodily condition, and what he eats and drinks. The bran-bread and pea-soup philosophy taught by Graham has long since passed into oblivion. Good cooking and good eating is only another name for economy, health and long life. Food should contain all the elements found in the body, as carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, etc.

Water in itself does not undergo chemical changes, and consequently is not concerned in the production of force, though it aids chemical action in other bodies and may be said to act by catalysis.

The field of general medicine has become so large that one makes a specialty of the eye and ear, another obstetrics, another skin diseases, another surgery, etc., but dietetics belong to them all. All are concerned in dieting in the several branches. The establishment of a chair of dietetics in connection with our colleges is a "want that has been long felt." Who can doubt that many serious diseases, as gout, rheumatism, diabetes, Bright's disease, scurvy and many skin diseases have had their origin in eating and drinking. Diet sheets should be written about as often as prescriptions.

Food for Infants at Birth.—Cow's milk, one part; water three parts; gradually increase the strength of the milk till about the third month. The food should then consist of about equal quantities of milk and water. At the end of the sixth month we use pure milk. Some physicians use cream, one part to six of water. I generally use equal parts of milk and water at birth; sometimes I add a little sugar. Some authorities maintain that the milk should be obtained from one cow, while others claim that the milk from one cow will likely be either too rich or too poor, and therefore it should be obtained from different cows to give it a better average.

The strength of the milk should be determined by experiment. Some strong children can use it full strength, while others will do better on one-third strength. Condensed milk is a convenient form of food in the large cities where it is difficult to obtain pure natural milk.

I think it is better to prepare your own foods where it is at all practicable. Human milk is neutral, but cow's milk is more or less acid, and therefore a little lime water may be added to render it neutral. In most febrile states of the child, water may be given to satisfy thirst and obviate overloading the stomach. Often when the child's stomach is irritable and rejects food and drink, the mouth may simply be moistened with ice water or lemonade.

It is often necessary during the period of lactation, in consequence of failure of the mother's health, to supplement the natural way of feeding. The child should satisfy itself in ten or fifteen minutes, at the breast, then drop to sleep or remain quiet. If it tugs at the nipple for half an hour it has not obtained sufficient nourishment, and the cause should be enquired into. To test this,

you may weigh the baby before and after feeding. The weight after feeding should be increased several ounces. Ordinarily the mother should not run down in health, still it often happens that the drain of a healthy infant proves too much for the weakly mother, and we must come to the rescue with artificial aid. It is often undesirable to wean a baby in hot weather except under the most favorable hygienic surroundings. At the same time we must consider the danger of causing rickets by too late breast feeding. The reappearance of menstruation should be an indication for the mother to wean her little fondling. Cow's milk and lime water, broken bread or crackers, etc., may be used after the age of four to six months.

Nutrition in Fever.

St. Martin Beaumont says that during fever the gastric mucous membrane is "irritable, almost dry, and fails in the secretion of gastric juice." The hydrochloric acid is lessened in proportion to the amount of pepsin present. It is probable that febrile dyspepsia depends upon the arrest of saliva, gastric juice and other secretions. The constitutional condition of the patient, his previous dyspeptic habit, his medicine and food have much to do with it.

The modern physician will nourish his patients to the extent of safety. He knows that the stomach and digestion are disordered and will not assimilate large quantities of food which, if poured in indiscriminately, will decompose, irritate the stomach and intestines, and cause distressing flatus.

Proteid substances especially should be given with caution. At the termination of long fevers it is striking what curious articles are asked for, as cheese, eggs, prunes, pork, fish, etc. I think it is proper in the hands of the physician to allow the patient a taste of what he craves, as a mere taste may satisfy and foster an appetite for something more desirable, except in brain fever, when collapse is impending, instead of pushing food seize upon stimulants to support the failing powers of life. Solid food should especially be avoided in enteritis, peritonitis, dysentery and typhoid fever. If it is feared that nausea and vomiting will occur, administer liquid food in small quantities and at frequent intervals. Since alcohol retards oxidation, reduces fever and is slightly nutritious, it may be given freely in the latter stages of exhausting diseases, and especially in lung and typhoid fevers.

Food in Surgical Cases.

In the domain of surgery so much attention has been called to antiseptics and cleanliness as to almost ignore dieting. It must be conceded that dieting in the treatment of wounds has been sadly neglected. In the repair of wounds an abundance of blood is necessary, and the quantity and quality of the blood depends upon nutrition. Barwell observed that in persons who abstained from animal food—the so-called vegetarians—the vitality of the tissues was very low, cicatrization took place slowly, and that suppuration or secondary hemorrhage was quite common.

General Remarks.

The nutritive value and digestibility of food must be taken into account. It is said that boiling milk will retard fermentation, but will lessen its nutrition and digestibility. A convenient mode of fixing it up is the following:

℞	Ex. pancreatis,	-	grs. v.
	Sodii bicarb.,	-	grs xv.
	Milk (fresh)	-	O. i.

Put the above in a clean bottle and put the bottle with its contents into pretty hot water for 30 minutes. Then place on ice or in a cool place till ready for use. This will greatly facilitate digestion and nutrition. The next in order is rare-poached or boiled eggs. The next is vegetables, then meats. Of the meats mutton and beef are most easily digested. The flesh of young animals is more easily digested, but not so nutritious as that of full grown animals.

Of the products of the sea, oysters stand first.

Roasting or broiling is the only proper method of cooking meats. Raw beef is both appetizing and nutritious. Soups are only slightly nutritious, except when combined with vegetables, flour, etc.

Rectal Alimentation.

Samuel Hood was the first to write about it in 1822, and Steinhausen in 1845. It is recorded that the Italians used this method two centuries ago. It should not be employed to the entire exclusion of the natural method. It should be used as a supplement or a substitute, and especially when the stomach rejects food, or when there is stricture of the throat or esophagus. The rectum is supplied with lymphatics and glands adequate for absorption and digestion. It is believed that the presence of food in the rectum stimulates the glands of the stomach and intestines. It does not usually benefit diarrhea, but is always beneficial in exhausting diseases. Beef soup, beef tea, milk, milk-gruel, cream, eggs and coffee may be used. Three to six ounces every two to eight hours will suffice. In times of apparent collapse a little brandy or spirits of turpentine might be added. Tepid enemata and bathing the body will diminish thirst. If the bowels are very irritable 20 to 40 gtts. of tr. of opium may be added. Patients will not only get along, but will actually gain flesh under this treatment. If there is constipation, instead of giving aperients or purgatives, use injections of milk which will serve as a nutrient and relieve constipation.

MISSOURI'S NEW MINERAL WATER.

BY R. L. JOHNSON, M. D., ROLLA, MO.

I wish to call the attention of the profession to the mineral well recently reopened at Rolla and to make a few remarks about the principal ingredient sulphate of sodium. It has been known for five or six years past that waters of this description exist in this vicinity. Prof. Wait of the School of Mines, made a quantitative analysis of a spring three miles from here, which showed a very large quantity of both sodium and magnesium sulphates. Unfortunately the supply of this was limited —only a few barrels a day. This water was prescribed frequently by physicians, here and has been often used by the people, and there has been no question as to the value of it as a mild cathartic and alterative, and of the fact that it did not cause simply watery discharges from the bowels but dark colored actions unaccompanied by pain or griping. This I considered due to the sodium sulphate. During the occupation of Rolla by troops between 1861 and 1864 a government well was bored about 140 feet through rock and an abundant supply of water was obtained, but owing to its cathartic quality it was abandoned and has remained closed ever since. This year a well has been bored within one foot of the old one and a large supply found, which it is my purpose to notice.

Prof. Wait, before leaving, had made only a qualitative analysis, which showed the water to be similar to that of the spring already discovered. We began therefore giving it a trial, and it has proved to be a gentle laxative unaccompanied by pain or griping in its action. There has not been time, however to give it an extended trial in certain classes of cases in which we would expect benefit. The people are using it, and many are enthusiastic over it. I have not been at all influenced by this kind of enthusiasm, and indeed from the very agreeable taste of the water had doubts of its having any special virtues. Last week, however, Mr. Kennett, who has the well, showed me a letter from Prof. C. M. Riley with his analysis which I here introduce.

"Prof. A. B. Shaw, M. D., Dear Doctor, I have made a careful analysis of the sample of water you sent me marked from Rolla, Mo. and find as follows. One gallon of 231 cubic inches contains,

Silica	.9835
Alumina	.7473
Ferrous Carbonate	.0195
Calcium Carbonate	25.3199
Magnesium Sulphate	24.8486
Sodium Chloride	10.5851
Sodium Sulphate	31 8427
Sodium Carbonate	2.3326
Potassium Sulphate	.5114
Organic Matter	.1037
Total	101.0859

Free carbonic acid gas 48.19 cubic inches.

The above analysis shows the water to be

of unusual excellence as a laxative and diuretic. Although containing such comparatively large amounts of Sulphate of Magnesia and Soda it is rendered palatable by the sodium chloride and carbonic acid gas in solution.

Yours truly,
C. M. Riley."

I have not within reach Walton or any other special work on Mineral Waters, but I will make a comparison of the analysis of the Rolla well with all of those in the United States and Canada which contain over 8 grs. to the gallon of sulphate of sodium. Out of 120 American springs the analysis of which are given in the United States Dispensatory only 20 contain that amount, and of these only four contain more than 32 grains (the amount in the Rolla Well. I use the nearest whole number.) Longmimis well, New York, contains 48, Fruit Port well, Michigan, 40, and Crab Orchard, Kentucky, 56. For the complete analysis of these waters see the U. S. D. where it will be seen that the Fruit Port well containe 464 grs. of chloride of sodium to the gallon and Spring Lake well 400—amounts too large to be agreeable or desirable in many cases. On comparing the Crab Orchard we find sulphate of magnesia 200 grs. to the gallon; so that in a case where sulphate of sodium is indicated the patient would have to take 200 grains of magnesia sulphate to get 56 grains of sodium sulphate. In the Rolla well when he has taken 200 grains of magnesium sulphate he will have taken 256 grains of the sodium sulphate. We therefore come to the fact that the Rolla well contains the largest proportion of sulphate of sodium to the other solids of any well in America, while it contains a number of other valuable ingredients, none of which is in disagreeable excess. Now as to the value of that salt I will not dwell upon my own experience with it by itself or as found in combination in the other mineral well near here, which I have frequently used, but make a few extracts from one or two works at hand. From Nothnagel and Rossbach Mat. Med. "For us the action of the medicinal alkaline sulphate upon the intestine is of the greatest importance"--"Sulphate of Sodium small quantities, 0.5 grams, taken once have no effect, even when taken at five hours intervals there is no effect; taken every hour after a time the same cathartic effect is produced as after a large dose * * * and (after large doses) "dark watery stools. * * * the concentration of the solution is of little importance * * * The *biliary* secretion is very much increased, so that experiment confirms the result of the clinical experience obtained at Karlsbad. It is remarkable that the Epsom salts show none of this cholagogue action. * * * The sulphuric acid of the urine is increased and that most of all when the salt is given in oft repeated small doses, yet on the whole the urine is said to become less acid and after long continued use even alkaline." "Sodium sulphate in particular has been lately recommended by Ziemssen for the treatment of ulcer of the stomach; a recommendation which has been repeatedly confirmed and to the reliability of which we can bear witness. * * * The springs of this class contain sodium sulphate in larger or smaller quantities as their principal active ingredient in addition to considerable or perhaps, equal quantities of sodium carbonate, sodium chloride and carbonic acid. It is supposed that the presence of these substances make it possible to use the mineral water containing Glaubers salts for a long time without producing any digestive disturbances." "The alkaline saline mineral springs because of several of their representatives belong to the most important and best of the springs which we possess." The U. S. Dispensatory does not allude to some of the characteristic actions of the sulphate of sodium. Trousseau says in speaking of its action. "The stools are sero-bilious."

Sulphate of sodium, however long administered, does not cause gastro-intestinal irritation, except in very rare cases. This valuable property permits its use for several months without compromising the health. "I would draw attention to the resemblance of this water to that of Karlsbad in ingredients and proportions, though not in amounts of ingred-

ients. Bartholow says Karlsbad is highly prized in affections of the liver and portal system, uterine diseases, gout, rheumatism and diabetes." It must not be understood that in restricting my remarks to the sulphate of sodium I ignore the other important ingredients, or forget the fact that the virtues of mineral waters do not depend entirely upon the virtues of the separate ingredients, but upon something else perhaps the manner of combination. Clinical experience is the final test for the physician. The water is certainly gently laxative and durietic, is very agreeable to the palate and quenches thirst delightfully. The well is situated in the center of the town, which is quite free from malarial or other endemic diseases. The water contains practically no organic matter, and owing to the depth of the boring through solid rock will necessarily remain uncontaminated.

Compensation for the Loss of an Eye.

In the Sheriff Court of Glasgow a boy has been awarded £65 as compensation for the loss of an eye. He was in the employment of the Clydesdale Iron Works, and was set to fix a punch in a punching machine. In doing so part of the apparatus broke and a fragment struck his eye, destroying it. The sheriff decided that the boy was ignoront of the work and unqualified for it, and ought not to have been set to it. He therefore awarded damages and expenses.—*Brit Med. Jour.*

This is very little compensation for the loss of an eye, especially in early life. The dangers to which an eye is exposed, are increased many fold by the loss of the fellow-eye. In truth when we consider the increased dangers to life and limb, an estimate in dollars and cents cannot be made of the value of an eye. And yet how lightly many persons regard the loss of one. They take the chances on an inflamed eye getting well, till they can scarcely tell day from night, in ordor to avoid consulting a physician.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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SATURDAY, JULY 28, 1888.

Death from Chloroform.

Under "News of the Week" in the *Brit. Med. Jour.* is given by Mr. Collinson the details of a case in which chloroform was administered to a patient who died under the anesthetic. He had previously taken chloroform with no untoward effect. At the time of the accident not more than two drams of it was used. Death was apparently from heart failure. The respiration, after once stopping began again. Post-mortem revealed no organic disease of the heart, which was in a state of diastole and filled with blood.

The editor of the *Memphis Medical Monthly* in writing of a case of death from chloroform which occurred in his city, June 25, raises a question that is worthy of consideration. When a physician administers an anesthetic, it is necessary for him to have some one present who is able to give disinterested expert testimony, that in the event that death occurs he may be able to prove that he has exercised due care in the administration of the anesthetic?

We are of the opinion that no physician acts wisely when he administers any kind of an anesthetic to a patient without having at least one other recognised physician present, when it is possible to do so. But now and then circumstances arise which demand that the attending physician shall assume the entire responsibility, administer the anesthetic and perform the operation, without professional aid. Such an accident as that reported bs Mr. Collinson may occur in the practice of

any physician, and a law requiring expert testimony in all cases would restrict the use of anesthetics to such an extent as would be manifestly unjust to suffering humanity. We are aware that some physicians take risks that they are not justified in assuming. For instance, putting patients "slightly" under the influence of chloroform for minor operations, in their office, having no one to assist them. Any operation that is sufficiently grave to require that the patient shall be put to sleep is also of enough importance to the patient for him to pay a second physician at least five dollars for administering the anesthetic, and surgeons should see that their patients understand this.

The *Monthly* is mistaken in asruming that the only justification for the continued use of chloroform in practice is found in the fact that more deaths result from the shock of operation without chloroform than occur from its direct influence. While deaths occur from its use sufficiently often to demand that every precaution shall be taken against accident in its administration, yet at the same time they are sufficiently rare to justify us in using the anesthetic in thousands of cases to obviate pain, in which there is scarcely a possibility of death from shock.

Tho other question discussed by the editor of the *Modthly* is more of a legal nature than a medical one. A prisoner who was held, on the charge of murder, was said to have received an injury to his head during childhood which destroyed part of the cranial bones, the deficiency being supplied by a silver plate. While in jail, he had marked symptoms of insanity, and the Assistant Attorney-General instructed the county physician to investigate the mental condition of the prisoner.

In order to accomplish this the physician placed the prisoner under chloroform with the result as stated. The *Monthly* pertinently asks whether the county physician or the attorney-general had any legal authority to jeopardize the life of a prisoner by putting him under chloroform, or to mutilate the scalp for the purpose of obtaining testimony.

Relative Frequency of Suppuration in the Mastoid Cells.

Dr. D. B. St. John Roosa, of New York, says that suppuration within the mastoid cells will rarely, if ever, occur if the cases are seen in time and properly treated. Dr. Roosa has a right to speak with authority on this subject, as it is highly probable that he has seen more cases of ear diseases than any one else in this country. Unfortunately these cases do not apply for treatment till suppuration has occurred. Dr. Roosa found mastoid disease in a little more than one per cent of the total number of his ear cases.

Dr. Leartus Conner, editor of the *American Lancet*, says that in a practice of seventeen years he has seen but six cases of mastoid diseases, and one of these required an opening of the mastoid, four recovering with a Wilde's incision and one without operative interference; whereas Dr. Allport, of Minneapolis, has opened twenty-five mastoids, (finding pus in each case) in a total number of seven hundred and sixty-two cases.

The latter observer thinks the climate of Minneapolis specially favorable to the production of the disease; chronic naso-pharyngeal catarrh being quite prevalent there. He has found that the disease is unknown in Florida.

Why one physician gets a run of a certain class of cases while others under similar circumstances have comparatiuely few, has not been explained, but this occurs so often that few physicians who have practiced any length of time, have not had it verified in their own experience.

It is a matter of judgment in each individual case of mastoid disease as to whether or not the cells shall be opened. A surgeon who has seen good results follow the operation is more inclined to resort to it, than he who has never had recourse to it. Dr. Theobald, of Baltimore, has never found a case, which he thought demanded that the mastoid cells be opened. It is highly probable that he has seen many cases in which other surgeons would have operated, but it is within

the limits of possibility that he has not.

Making a Wilde's incision is a simple procedure when compared with the operation of making an opening in the outer wall of the mastoid process. Usually when there is pus in the cells, a sinus, varying in size, can be found opening on the surface of the bone.

In many cases of so-called mastoiditis the pus extends from the middle ear along the posterior wall of the auditory canal, and passing on to the mastoid process dissects up the periosteum on its anterior and outer surface. These cases are very misleadnig, a probe introduced into the sinus passing in front of the process, is well calculated to induce the operator to believe that he has entered the mastoid cavity.

Treatment of Pneumonia.

In the good old days when the accumulation of a winter's debris in the blood was drawn off by way of the medio-basilic vein—when pneumonia patients were placed in a sitting posture and bled till they fell over, the mortality rate in this disease was something over one in three. When phlebotomy was exchanged for emetics and purgatives, only about one in four succumbed. Later the "do-nothing plan" reduced the mortality to about fifteen per cent, and following this the supportive treatment has reduced the death rate in uncomplicated cases to less than five per cent.

At present there is perhaps as much uniformity in the treatment of pneumonia as in most of the acute febrile disorders, which means there is much to be learned in its management.

Dr. Arthur Jamison (*Brit. Med. Jour.*) gives the result of his experience in treating two hundred and thirteen cases of various grades of severity of single and double croupous pneumonia at the ages varying from 15 to 73 years.

His paper is especially iuteresting and instructive in that he has been able to trace the after history of 155 of his cases. He says: "During my first years of practice my treatment was mainly expectant. I thought and had been taught that pneumonia had a definite course; that drugs could not alter its history, and beyond stimulating the old, the rest in bed, a warm poultice, and any sort of a placebo mixture was treatment enough. Symptoms, on the average subsided on the eleventh day; convalescence seemed established, and expectancy triumphant. Any prolonged debility afterwards was put down to insufficient means, imperfect hygienic surroundings, or to the generally below par state of health of many operatives living in towns. But I began to wonder if expectancy was the best treatment when I found so many whom I had so treated so frequently ill afterwards. The chief symptoms were slight cough and expectoration, inability to work as well as formerly, a constant sense of slight weariness, and in nearly every case a feeling of flatulent distention and weight after meals and a varying amount of anorexia. Though the body might be fairly well nourished, yet the face was too thin proportionally to the body, and wore an expression of considerable depression, the bowels usually torpid, tongue furred, and especially indented with teeth marks. On closer inquiry I found that for three or four months following the attack of pneumonia these patients got on fairly well, but after that began to droop and never felt up to the mark, and with this chain of symptoms I always found evidences of unresolved pneumonia."

Of the 155 cases, 81 had perfectly clear lungs afterward and 74 had dulness over the affected region to a greater or less extent, indicating impaired lungs, and they were frequently ill, 13 of them dying of phthisis afterwards.

Of the cases of unresolved consolidation 29 were treated on the expectant plan, 20 by ammonia, 10 by quinine in full doses, 7 by aconite and 8 by rather large doses of tartrate of antimony.

Dr. Jamison says that aconite in small doses has no effect, and in large doses is dangerous. Ammonia he found to be ineffective. He considers quinine useless in small doses

and dangerous in large ones. Kairin is a useless and dangerous remedy. The importance of obtaining complete resolution of the pneumonic products was emphasized by calling attention to the well established fact that the tubercle bacillus finds its best nidus in old inflammatory products.

He treated a few cases with tartrate of antimony and his results were proportionally better than any other plan of treatment. Of the 81 cases in which no consolidation could be detected afterwards, no less than 65 were treated with this drug in one-twentieth grain doses given every hour for young adults and less often for older ones. He continued this treatment for several days,often a week, after the temperature had returned to normal, in order to insure complete resolution. When the principal symptoms subside, the drug may be given less often. He is strongly of the opinion that frequently repeated small doses of antimony is the best remedy known to us at present. No unpleasant effects followed its use in the cases given. "Its action seemed to be simply a respiratory sedative."

We do not see how a simple respiratory sedative can hasten or aid absorption, but the fact as recorded by Dr. Jamison is worth all the theories that can be offered. It is probable that in many cases "the battle is not fought out," the patients being discharged during the convalescent stage. Patients are too much inclined to regard the services of a doctoras a necessary evil, and as soon as they canget along without his visits they discourage further attention.

The Exploring Needle.

A few years ago it was considered by many physicians quite safe to pass a hypodermic needleinto any organ in the abdominal or thoracic cavity, except the heart and large blood-vessels. Further experience has taught that many dangers attend its use. In number 25, June 23, the Review called the attention of its readers to a paper read by Dr. Curtis, before the New York Clinical Society, pointing out some of the dangers accompanying the introduction of the needle into the abdominal cavity.

The *N. Y. Med. Jour.*, July 7, gives the exceedingly interesting discussion of Dr. Curtis' paper. Dr. Biggs thought the conversion of simple pleurisy into empyema, and the production of pneumothorax by puncturing the lungs with the needle, occurred much oftener than was commonly supposed. Dr. Munroe reported a case in which fluid feces followed the withdrawal of a small hypodermic needle from its insertion in the intestines. Dr. Swift spoke of a case in which a moderate sized aspirator needle introduced through the thoracic wall brought away blood and caused hemoptysis. The patient died of phthisis. Dr. Roosevelt reported two cases of dilated gall bladder, where the use of the needle was followed by peritonitis and death.

It occurs to us that this is especially a dangerous procedure, as the structure of the gall-bladder is not of such a nature as is calculated to close the puncture so that the thin bile may not escape. Dr. Delavan was of the opinion that less danger attended the use of the exploring needle than there was in its omission. A number of physicians expressed the belief that the needle may produce empyema. There was a difference of opinion in regard to its danger in cases of perityphlitis.

We do not think the attention of the profession has been sufficiently called to the dangers attending the introduction into cavities of needles that have not been sufficintly cleaned. It is quite common for the instrument to be used time and again without being cleaned at all. In simple hypodermic use the worst that is likely to follow this practice is the production of abscesses, but much worse things may happen, such as the transmission of syphilis and other diseases. We have heard of a practitioner who was so rash as to use his aspirating needle for injecting medicines hypodermically.

Whether for exploratory purposes or hypodermic use, every needle should be thoroughly cleansed before using it.

A New Method of Curing Stricture of the Urethra Rapidly and Without Danger.

Under the above heading, an account is given in the *Journal de Medicine de Paris* for June 17, 1888, of a method of treating stricture by rapid electrolysis, originated by Dr. J. A. Fort.

It is to be preferred to urethrotomy, the author says, because the latter is a bloody operation requiring the repeated passage of the sound afterwards, and a retiring to bed for a time; it is a dangerous operation in some cases, and is almost always followed by recurrence. Dilatation has not been deprived of danger, and entails a very prolonged treatment.

The instrument which he employs is composed of a single piece, a long bougie of gutta-percha, pierced through the center by a metallic thread, and bearing a platinum plate having an edge which cuts a linear pathway through the stricture tissue.

The operation lasts ordinarily from three to five minutes and needs no after-treatment.

From 12 to 16 cells are used, making an intensity of from 20 to 30 milliamperes according to the hardness, etc., of the stricture.

It is claimed that the operation of linear electrolysis produces a molecular disintegration of the stricture tissue, coming in contact with the plate of platinum. After the operation, this is made manifest in the mucopurulent discharge which lasts several days.

The operation is rapid, produces no hemorrhage, and according to M. Fort, has never been complicated by any accident, although he has practiced it more than four hundred times.

Two patients with very tight strictures were shown and operated upon before the clinic of Prof. Richet, at l'Hotel Dieu, on the first of May. No sound was introduced afterwards. Three weeks later, on May 25, Prof. Richet had the patients in the clinic amphitheatre; one passed a natural stream, the other a stream bifurcated, but voluminous.

M. Fort has never found in the urine of patients on whom he has operated debris, indicating the presence of a scar in the urethral canal. With reference to the question of cicatrix, however, he is not absolutely sure.

The claims for the operation, as in most of such cases, are large. Should they be substantiated by the test of practice, the treatment of stricture will indeed be simplified.

No statistics as to permanency of the benefit attained are given. If, as is asserted by all electricians, the molecular disintegration produced by electrolysis is followed by no scar-forming process, it may readily be conceived that no recurrence will take place.

The essential differences between this method and that commonly used in this country, and introduced by Newman, lie in the form of the instrument, by which the electrolytic influence is brought to bear only one portion of the stricture, in the intensity of the current, which is two or three times greater than that used by Newman, and in the want of necessity for repetition of the seance. It more nearly approaches cauterization than the older method, and is, therefore, theoretically less liable to be followed by permanent cure.

B. Lewis.

Electricity in Gynecology.

We reproduce in this issue of the Review a paper written by Sir Spencer Wells and printed in the *Brit. Med. Jour.* of May 12.

In the journal of the same issue Dr. Apostoli reports an interesting case of hydrosalpinx, in which he used the galvano-puncture.

A patient, age 25, having a good history, had no trouble till the fourth month of her fourth pregnancy, at which time abortion followed a severe fall which she received, striking upon her back.

Immediately after the miscarriage, for the first time in her life she felt a pain in the right iliac fossa. This kept her in bed for two weeks. At the end of this time she was somewhat better, but soon the pain returned with increased violence.

Upon examination it was found that she

had high temperature, and on eight uccessive evenings she had a rigor about bedtime, lasting an hour. The usual symptoms accompanying high fever were present. There seemed to be a phlegmonous deposit in the region of the broad ligament on the right side. The vaginal cul-de-sac was obliterated except anteriorly. The evidence of fluctuation in the right side was very clear. It was thought that peri-uterine phlegmonous suppuration was present.

The patient was placed under chloroform, the vagina washed out with a bichloride solution, and a fine trocar introduced on the left side the depth of one centimeter, with a current of one hundred milliamperes for five minutes. Two days later no change had taken place in the right side, but the left was markedly improved. Ten days later the same trocar was introduced in the right cul-de-sac to the depth of a centimeter and a half with a current of 140° for five minutes. Two days later examination showed that structural retrogression was going on. Contrary to advice, the patient returned to her home. Shortly after, while lying in bed, there was a gush of clear, odorless liquid from the vagina, and from that moment the patient was relieved.

Dr. Apostoli gives the following conclusions drawn from this case:

1. In gynecology fever and inflammation are not to be regarded as absolutely contraindicating the methodical and proper application of the galvanic current.

2. Inflammation of the uterus and its appendages, when not in the stage of suppuration, may be advantageously treated by the galvanic current. This current, though admissible in the first stages of congestion and inflammation, I consider ought not to be used when suppuration exists, unless it be brought into action in the form of an electrical cauterization, for the purpose of making a safe and certain outlet for the matter through the vaginal wall.

3. A galvano-caustic puncture is a valuable means by which we may gain two ends; first, to check the outbreak of inflammatory action or to stop its progress; secondly, to give an easy exit to a collection of fluid, by the falling of an eschar, in any case where the cavity containing such fluid is accessible through the upper part of the vaginal wall.

4. Every inflammatory exudation presenting itself in the vaginal cul de sac may be treated by means of the galvano-puncture, except under the condition which I shall hereafter mention.

5. This method may be easily and harmlessly employed for the treatment of certain cases of salpingitis and hydrosalpinx, on account of the close relation between the tumors and the vaginal wall.

6. In making every galvano-puncture, all the rules which I have hitherto laid down concerning the seat of the puncture, its depth, the size of the trocar, the antiseptic precautions, the repose of the patient, etc., must be scrupulously observed.

7. Two negative galvano-punctures, vaginal only, were sufficient in one case of hydrosalpinx to bring about very quickly an important anatomical change, and complete symptomatic cure.

In writing upon electrolysis of fibroids Dr. W. E. Steavenson, of England, brings much proof to the support of the theory that the electric current has a modifying effect on the cells of which tumors are composed. Dr. Inglis Parsons suggests that the same effect is produced upon the healthy structures, but that their recuperative power is sufficient to counteract this, whereas, in fibroid tumors, on account of their low degree of vitality, a retrograde metamorphosis is set up. In conclusion Dr. Steavenson says:

The tumors do not disappear so rapidly or so completely as we have been led to expect, or perhaps as British gynecologists supposed would be the case. I do not think that the electrolytic treatment will supplant the necessity for abdominal section or removal of the uterine appendages in such cases as those in which these operations would be appropriate, but I do think that in the use of electricity we have a means of treating fibroid tumors which is superior to any we have for

merly employed, short of their entire removal. I have treated a large number of cases, and in nearly all the symptoms have been relieved, in many the tumors have decreased in size, and in some the decrease has been considerable. The hemorrhage has usually been arrested, the dysmenorrhea has been relieved, the pain and discomfort have decreased, the rectal and bladder troubles have also been lessened, and the patients able to get about and walk with much less difficulty. All these favorable symptoms are probably due to the relief from pressure caused by a slight diminution in the size of the tumor. Nearly all the patients I have operated upon have expressed themselves as feeling better—better in health and better in spirits. In those whose tumors were accompanied by menorrhagia no doubt the improvement in health was greatly due to the arrest of the hemorrhage. That adventitious tissue does decrease and get re-absorbed under the electrolytic treatment I feel sure, and have been able to observe it in several cases of stricture of the urethra.

It is impossible to reconcile the varied reports as to the value of electricity as an agent for producing absorption of adventitious tissue. It has many times been condemned as utterly worthless. Dr. Apostoli and Sir Spencer Wells express the opinion that the secret of success with it lies in the manner of application.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

May not the question well be presented whether a very considerable part of the invalidism of the women in the better ranks of society to-day be not due to a failure to be properly employed? More particularly the young women in well-to-do families who, after their school days are over, practically fold their hands and become as idle and useless as painted ships on painted oceans.

If they used the broom and feather duster in the development of their muscles, and stimulated the sweat glands by duties in close proximity to the cooking stove they would have fewer cases of chlorosis, neurasthenia, spinal irritation, ovarian and uterine disturbances, inactive liver, catarrhal stomach and over-filled colon, and be more on the order of the girls of primitive times who were a joy to themselves and the homes in which they lived. If the families of the well-to-do discharged their servants and put their daughters to work Christian science, infinitessimal, and other frauds and fads would cease to be.

* * *

Dr. Garnett, the retiring president of the American Medical Association, who died only last week in Washington, resigned from the U. S. Navy at the beginning of the war in 1861, and became the surgeon general of the Confederacy. He was in Richmond at the surrender, and as the personal physician of Jefferson Davis, he was credited by the latter with having saved his life by his professional skill. He was an elegant, courtly gentleman of the grand old school of gentlemen.

* * *

The profession of our state and the surrounding states will not forget that the Mississippi Valley Medical Association meets in St. Louis, September 11, 12 and 13. The Committee of Arrangements cordially invites every doctor to come who can subscribe to the following:

"Art. III. Membership in this Association shall be limited to those members of the profession of medicine who acknowledge allegiance to the American Medical Association by signing its code of ethics. No individual who shall be under sentence of expulsion, suspension or disability from any recognized State, County, District or Local Medical Society, shall be eligible to membership in this Association until said disability shall have been removed. All applications for membership shall be referred to the Committee on Credentials. The annual dues shall be $3, payable in advance."

* * *

Papayotin (vegetable pepsin) is a product of the juice of the melon-tree (carica papaya), and while a most efficient aid in digestive disturbances, is very valuable as a membrane solvent in diphtheria. In a weakly alkaline aqueous solution, it is found that the peptonizing force of papayotin is best developed. Jacobi uses the following: Papayotin, one part; glycerine, four parts; water, one part—the solution to be applied with a camel's hair brush to the pseudo-membrane at intervals of a half hour.

Dr. Keating Bauduy, of St. Louis, is enthusiastic in his praises of the drug.

I have seen very rapid softening and breaking down of diphtheria membranes after a few applications of the digestive solution. Merck's preparation is to be preferred.

* * *

Dr. G. W. Ross, the secretary of the Medical and Surgical Society of Western Illinois, announces that the next regular meeting will be held in the Court House at Jerseyville, Wednesday, August 1. Morning session, 10:30; afternoon at 1 o'clock.

Paper by A. K. VanHorn, M. D., of Jerseyville, "Gangrene."

Address by Chas. A. L. Reed, M. D., of Cincinnati.

That the meeting will be an interesting and profitable one goes without saying.

Dr. Reed will present an address in every way valuable and of service to the busy practitioner.

* * *

Governor Morehouse has not yet commuted the sentence of Maxwell, the alleged murderer of Preller, but I hope he may see his way clear yet to do so.

I think the principal plea in his behalf should be based upon the fact that the majority of medical men will sustain the proposition that it is not possible for a man to be forcibly chloroformed to death by a man one half his size, or even of superior force.

The record, character and history of Maxwell readily suggest him acting the part of the rash and rattle brained fool, with a smattering of a knowledge of medicine (just enough to make him blissfully reckless and dangerous), ready to rush in single handed and alone where angels would fear to tread, and administer chloroform to his equally shallow, trusting and silly friend, preliminary to the performance of a surgical operation which may or may not have been necessary, and when suddenly confronted with a dead man—dead at his hands, a stranger in a strange land, with his only friend dead before him, having read just enough of law to make him suppose that as in his own country he would not be permitted to testify in his own behalf—then in his dilemna hesitating, each moment of delay adding to his danger and mental demoralization—then crazed with fear and drink, going on in his mad career of folly, frantically attempting to escape, being penniless, desperately robbing his dead friend, and in a frenzied way making awkward and brutal efforts to hide his terrible secret and mislead his pursuers, fleeing, and blazing the way with his voluble tongue, across the continent and the ocean, aiding in every way possible the authorities in their efforts to capture him.

The record is much more suggestive of a thoughtless, addled-brained victim of whisky, narcotics, bad habits and accident than of a cool and premeditating murderer.

Accidents in the administration of chloroform have happened in the hands of the ablest surgeons in the world.

Every surgeon knows the possibility of accident from this cause. Upon this subject the eminent Dr. W. W. Dawson, of Cincinnati, president of the American Medical Association, says:

"A few days ago I took the liberty of addressing a short communication to Gov. Morehouse on "Chloroform Deaths." I felt satisfied in doing so, from the fact that I have lost two patients and witnessed the the death of another under the care of the late Dr. Wood of this city from the use of this drug. What I particularly attempted to show was that death from chloroform is unexpected; that no one, however experienced, can forecast the result of an administration of that

agent; that the death of Preller was unexpected—accidental. I stated to His Excellency two or three propositions.

1. The quantity of chloroform used is not a factor of danger. I have given large quantities with impunity; and yet, the first patient I lost, Bridget Henry, at the Cincinnati hospital, died before two teaspoonfuls had been used.

2. Neither is time an element of danger. When a patient bears the agent well it may be administered for hours with safety. A Mrs. Garrows of Washington, C. H., Fayette county, O., died in a dentist's chair before she had taken a dozen inhalations, and yet that lady had taken chloroform in all her labors—eight, I think—and her physician, the late Dr. Stewart, of Bloomington, O., assured me that in one of her confinements he had kept her under its influence for twelve consecutive hours. His case also shows that former or frequent use of the agent does not give immunity from danger.

3. There is no disease, either local or general, which per se can be said to preclude the use of chloroform; it is often given in diseases of the heart, lungs, brain, etc. I once saw a strong man with but a small fistula in ano die at once under its administration immediately after the accident. Dr. Wood, who saw the surgeon operating, brought into the amphitheatre an old and very feeble man 70 years of age, with both feet frozen, and he slept sweetly during a long and tedious operation.

4. As I said to the Governor, no one can forecast the result of a chloroform administration. There is (fortunately in a very small number of persons) some condition, some peculiar state of the system at that time which renders chloroform inimical, adverse, dangerous, a condition in which the agent smites the heart and smites it fatally, and unfortunately this peculiar condition cannot be discovered nor the hazard foretold. Every physician has seen it administered to patients far gone in consumption and yet many persons have lost their lives from its use in teeth extraction."

I myself saw a hearty robust man walk into the amphitheatre of the city hospital in 1872, to have a painful but not dangerous operation performed by Dr. Lankford, at that time one of our leading surgeons. He took his position upon the operating table, chloroform was carefully given, by the time a half dozen whiffs had been taken, he suddenly ceased to breathe, he was dead beyond resuscitation.

Bringing the case in its entirety not from the Dingfelder standpoint (though the evidence of a paid private detective who would perjure himself before a grand jury is not worthy of belief, the minion must needs give something in return for the money paid him), not from the standpoint of sentiment, though God knows that the picture of that mother and sister hovering like angles about the prison bars is enough to move a heart of stone, but more particularly considering the medical aspects of the affair I think the governor should interfere in behalf of the condemned Maxwell.

I trust that physicians everywhere will bring their influence to bear upon the governor so that a grave blunder bordering upon a crime may not be committed in the name of justice.

* * *

Thorough emptying of the bowels should be secured twice daily in every pregnant woman up to the hour of confinement and immediately after, complete purgation should be obtained and a daily evacuation should be insisted upon thereafter.

By pursuing this plan are we most apt to aid in the gaining of a prompt involution, and guard against septic infection, poisoning by ptomaines, etc.

A brisk establishment of perfect action of all the secretory and excretory organs is desirable, for after a nine months pregnancy the mother is loaded down with accumulated effete matters; the circulation has been burdened by a double duty and interfered with in its work by the mechanical obstruction of the child. The above plan gains a re-establishment of the circulatory and organic

equilibrim and at once the patient should be given a diet which will nourish her and please her. Anything is admissible which she can digest. A generous and agreeable menu should be furnished her, nothing in the way of food will hurt the the child if it agrees with the mother. Whether it be fish, flesh or fowl, fruits or vegetables, the old weather-beaten "Sarah Gamps" of the lying-in-chamber to the contrary notwithstanding.

* * *

Appropos to the subject of irrelevant discussions in medical societies referred to in the last issue of the REVIEW I notice in the columns of the *K. C. Med. Index* a report to the effect that the late meeting of the Kansas State Medical Society was a most disgraceful wrangle, principally over the subject of ethics. A faction in the Kentucky State Medical Society at its late meeting led by a man who has been long in the profession, who is able and eminent and old enough to have known better, created much disturbance and interfered with the legitimate work of the society all because the Committee on Nominations reported some names for officers which were personally objectionable to the leader of the faction and his allies. The aforesaid leader, able and eminent, because his objection was overruled, withdrew from the society. Again I say the object of medical organizations is science; remand then to appropriate committees of good and representative men all questions of ethics, elections and everything of a business character and accept their dictum, right or wrong.

The result may not always please us individually but he is a small man who will permit personal affairs to influence his relations with organizations the prime object of which is the general good.

Let medical bodies cease to wash their soiled linen in public.

* * *

Speaking of ethics I believe in a thorough execution of all our professional laws in that direction. While there are a number of points in the Code that are more sentimental than practical, yet as long as they form part of the law they should be obeyed.

There are some men born into the world who naturally tend in the direction of good, and others who incline as naturally to that which is questionable. So there are doctors who are congenitally ethical and who need never to have even read the code, whose guide in life is the golden rule, but again there be doctors who are constitutionally charlatans, and who are intuitively quackish, they can hardly help it, they are built that way. They may be able, strong, brained, valuable men, but they need the guiding care of their more favored fellows to keep them in the line of professional rectitude. Then again we must remember that that grim slave driver, necessity, sometimes makes our less fortunate brother deviate—a hungry wife, starving and naked children, the wolf at the door have been known to drive men to the commission of worse crimes than violating the medical code.

This thought brings to my mind the lines of Celia E. Gardner. She says:

"That no one can tell what they'll do 'till they're tried, must in like circumstances be placed to decide that those the most strong in asserting their own immaculateness are most often the ones, not alone to the tried in that special respect, but to yield to the offered temptation when met."

CORRESPONDENCE.

PARIS LETTER.

PARIS, July 10, 1888.

Dr. Bourguinon publishes the following interesting case of transmitted tuberculosis.

In October, 1885, I was called in to M. P., clerk in a counting house at Tours. M. P. had suffered for some time from a slight, dry, exhausting cough, feverishness at night, and intermittent pains in the thorax. His father died of an affection of the heart, his mother of phthisis. Two sisters died from tuberculosis, one at 19, the other at 27 years of age.

The patient when first examined presented no symptom of tuberculosis. As the months passed by the symptoms, however, appeared; the cough and fever increased; the patient became breathless after going upstairs, perspired nocturnally, lost flesh. In the month of February, 1886, distinct crepitation and dulness under the left clavicular were heard. Finally in October, 1886, the patient died, after having presented all the symptoms of pulmonary tuberculosis, of which the evolution lasted about 15 months.

On first visiting the patient I noticed a dog, whose extreme thinness attracted my attention. This dog barked at me whenever I entered the room, and I observed that after barking he was seized with an access of coughing. The persistence of this symptom, joined to the continual loss of flesh, awakened my curiosity and reminded me of the cases of contagion reported by Dr. Leon Petit. I advised M. P. to have the dog sent to a veterinary surgeon; this latter replied categorically that the dog was tuberculous.

The dog became worse and worse, extremely thin, its hair rough, stiff, as if it had been brushed backwards. M. P. would have had it killed, as its cough was distressing, expectorations frequent, appetite quite lost. I asked him to allow the evolution of the disease, that the veterinary surgeon and I might make a post-mortem examination.

Meanwhile I learned that it had been given to M. P.'s sister as a puppy, and during her illness had been literally brought up in her bed. After her death M. P. had taken care of the dog, which had thus been brought up in contact with tuberculous patients. The dog died in the last stage of hectisis in November, 1886.

M. Plouchart, veterinary surgeon of Tours, made the post-mortem examination in my presence.

The lungs were riddled with tubercles, the left lung contained many centers of softening. The peritoneum was covered with miliary tubercles. The left kidney presented a great number of miliary tubercles; in the right we found four or five tuberculous nodules in process of softening.

The stomach and intestines were normal. There is hardly the possibility of a doubt that the disease was transmitted to the dog by M. P. and his sister, tuberculosis very rarely being found among dogs.

The mode of transmission is not quite clear. The dog, doubtless, absorbed bacilli from swallowing the expectoration or vomitings of the patients, yet the normal condition of the stomach and intestines would point to its having acquired the disease by the respiratory organs.

The *Journal de Medecine*, of May 6, publishes a paper by M. Huchard on hysteria of the respiratory organs. The author has already remarked how frequently simple laryngitis, angina pectoris, and bronchitis are transformed into aphonia, spasmodic contraction of the esophagus, or a hoarse, sonorous cough, symptoms which an antiphlogistic treatment entirely fails to come at, and which disappear spontaneously. MM. Denian and Leclerc have studied gastric hysteria and cardiac hysteria in M. Huchard's wards. M. Leon Petit describes a case of pulmonary hysteria which M. Huchard regards as one of hemoptysis of hysteric origin. In general this particular affection should, according to M. Huchard, be designated as hysteria of the respiratory organs (*hysterie respiratoire*). The spasms may be localized in the nose, the larynx, the diaphragm, bronchial tubes, etc. This form of hysteria is manifested according to localization, by sneezing, spasm of the glottis, sobbing, coughing, pseudo-asthma, dyspnea and polypnea; the vaso-motor disturbance takes the form of pulmonary inflammation (Debove) or of hemoptysis. M. Huchard cited several cases of spasm of hysterical origin in the respiratory organs which appeared so serious that tracheotomy was resorted to, but, as is usual in such cases, without modifying the symptoms. M. Huchard points out the difficulty and, at the same time, the importance of establishing the exact relations between hysteria and affections of the respiratory organs without confusion. In a consumptive patient, at the second stage, a sonorous incessant cough, of a dis-

tinct character, will sometimes appear quite suddenly. The following symptoms successively follow: sudden aphonia, hemoptysis, which usually recurs at the menstrual period, neuralgia in the upper intercostal spaces, which terminates in hyperesthesia of the whole side of the thoracic wall (pleuralgia), the apophyses of the spinal vertebræ are painful; there is complete and persistent anorexia, and in certain cases irrepressible vomiting which may last for months or even years. These symptoms continue for months, but in the meantime the pulmonary lesions are not aggravated. All the pathological activity is monopolized by the hysteria. In other instances, however, the tuberculosis predominates, and the hysteria is subservient. The tuberculous symptoms develop rapidly and check the attacks of hysteria, or suppress certain permanent hysterical symptoms, such as hemianesthesia, hyperesthesia of the ovary.

In cases of pseudo-tuberculous hysteria the patients frequently present symptoms (amongst which a dull sound in the apex of the lungs is the most characteristic) which indicate the presence of tuberculosis, when in reality this affection does not exist. The dull sound in the apex of the lung is explained by the spasmodic contraction of the muscles in the region subjected to percussion.

Brachet affirmed that hysteria encouraged the evolution of tuberculosis; other authors have stated that tuberculosis determines the appearance of hysteria. Both these conclusions are erroneous. Without entirely admitting the truth of Leudet's theory, that phthisis and hysteria exercise an antagonistic influence on each other, M. Huchard affirms that in many cases he has observed that the combination of the two affections in the same patient changes the habitual aspect of each of the affections. In tuberculous hysterical patients there is a complete disparity between the relatively benign local condition and the serious character of the functional disturbance. The consequence is that errors in the diagnosis may often arise. It is most important to distinguish the different influences exercised by hysteria and tuberculosis in the same patient, and exactly which symptoms are due to each affection.

M. Dupre stated at the Societe Medicale de Reims that the influence of seasons upon enteritis renders its action so rapid as to defy medical sagacity, even when taken at the start. Oxide of zinc is the only medicament known to be efficacious in checking the alarming symptoms of athrepsia, and is always prepared as follows:

Sublimized oxide of zinc, -	3 grs. 50.
Bicarbonate of soda, -	1 gr. 50.
Tincture of ratanhia, -	20 drops.
Plain syrup, or gom. julep,	30 drops.

The child is given a teaspoonful of this preparation every half hour until vomiting and diarrhea have ceased. The first teaspoonful stops the vomiting, and the third or fourth the diarrhea. In rare cases where this treatment fails in entirely checking the disease, it always brings marked relief, and prevents complications. From 1884 234 cases of athrepsia, all happening during the months of July, August and September, were treated by oxide of zinc, and among these only eight deaths were registered; thus rate of mortality was 4.7 per 100.

At the meeting of the Association Francaise pour l' Avancement des Sciences, April 2, 1888, a note from Dr. Haro, of Montpellier, was read, on a new decision of the municipality concerning the hygiene of young mothers and new-born children.

M. Haro suggested to the Mayor of Montpellier to join to the family book the first principles of hygiene for women during pregnancy and confinement, and new-born children. The mayor received the proposal favorably, and at the session of Conseil Municipal, March 7, it was decided that the instruction, edited by Dr. Haro, and approved by the Conseil Departemental d'Hygiene, should be added to the "levret" presented to newly married couples by the civil officer.

Dr. Vernueil spoke at the same meeting on the benefit of emigration to a healthy center in cases of surgical tuberculosis. He insisted on the utility of pre-operative treatment. He

never performs an operation on a scrofulous patient without having first administered iodoform internally, 0.05 grammes daily. Eight days after the operation he resumes the internal use of iodoform. There are two kinds of surroundings, the pure and the curative (thermal hibernal, seaside places).

Dr. Gillot, of Autun, communicated some observations on the ampullary dilatations of the blood-vessels of the tongue and their semeiological importance. He has remarked on the lower surface of the tongue, more or less developed dilatations of the blood vessels varying in number, not unlike miliary aneurisms of the brain. There is probably a close relation between these ampullary dilatations of the tongue and analogous changes in the capillaries of the brain. The existence of these miliary tumors in the tongue might be supposed to indicate similar dilatations in the brain, thus prognosticating the imminence of cerebral lesions.

If this were indeed the case, a lingual cerebroscopy would be established, very easy to decipher.

M. le Dr. Burot, of Rochefort, communicated a case of convulsive fits with echolalia and coprolalia. A young girl, 20 years of age, was attacked by convulsive distortions of the face and limbs, at the same time producing sounds and emitting words more or less obscene. She is now almost cured, with only a slight tendency to the fits. This result has been obtained by moral treatment alone. The disease is caused by a want of equilibrium between the sphere of intellectual activity and the sphere of cerebral automatism.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening, June 30, 1888. The president, Young H. Bond, M. D. in the chair, J. B. Prichard, M. D., Secretary.

Dr. Brokaw, Jr.—I have here the genito-urinary tract removed from a case of miliary tuberculosis. The patient came to the hospital two days ago. We could not get a very full history, but he had symptoms of stone. I endeavored to introduce an instrument into the bladder, and found that I could not, but after trying some very small instruments at last succeeded in passing with a great deal of difficulty, a small French catheter, I believe a number six. The obstruction was deep-seated in the bulbo membranous portion of the urethra. I thought I would defer further examination until the next day, and the patient died that night.

On making a post-mortem examination I found a very interesting condition of affairs. I opened the abdomen and found rising up before me on the right side a very large tumor, twice as large as a child's head. I felt this tumor through the abdominal wall during the life of the patient. The tissues were so matted together that one could not define the normal anatomical relationship of the parts.

I removed the genito-urinary apparatus. I found cystic degeneration of the kidneys. This is a very beautiful sepcimen, the kidney structure proper is almost entirely destroyed, and we have the kidneys as well as the pelvis filled with a cheesy, degenerated tubercular mass, with the characteristic gray tubercles disseminated all over the surface. The capsule in places was made so thin by the purulent collection and degenerated tubercular mass that little abscesses had broken out and got into peri-renal tissue. The kidneys also contained quite a large quantity of fluid, I should judge eight or ten ounces.

Dr. Bremer made a microscopical examination, and he was inclined to believe that we have here a case of cystic degeneration of the kidneys of bacterial origin. After removing these specimens I examined the lungs and found them in a condition of miliary tuberculosis. It is probable that this process began in the lungs, and that this is nothing more nor less than a secondary manifestation, as both lungs were in a state of cicatrization, and in the apex of one I found a very small cavity, the right lung being most involved.

The ureter, as is almost characteristic of this cystic degeneration when due to tubercu-

lar trouble, is very much thickened and has a peculiar gristly fell. The bladder, as was to be expected, was contracted and roughened, and we find a very well marked typical infiltrated tuberculosis which is the state preceding ulceration. The prostatic portion is quite thickened and hard and has a gristly appearance and feel.

I found a granular condition of the urethra, which gave rise to urethritis which was present at the time of the examination, and undoubtedly accounted for the discharge. This thickened, contracted portion of the urethra runs back a distance of two and a half inches, it begins a little before the bulbo membranous portion and extends to the prostatic portion of the urethra. The urethra has a corrugated appearance.

I did not find any particular involvement of the testicles. I could not get at the vesiculæ seminales well enough to state whether they were involved in this process, on account of the adhesions existing between the bladder and rectum, and the pelvic fascia and structures of the pelvis. The bladder is contracted, its walls thinned, and in some places thickened, it is very friable.

Dr. Bremer.—I made a microscopical examination of the specimen, with a negative result. I saw there was inflammation, but I found no microbe. There was obstruction somewhere in the kidneys, but I did not examine it carefully enough to learn where.

Dr. T. A. Martin read a paper on the etiology of summer complaint in children. then Dr. Love read a paper on the dietetic treatment of summer complaint in children.

Dr. Alleyne.—The treatment of summer complaint in children is a difficult subject. From year to year, and as I come upon the summer I look upon it with a degree of anxiety, fearing possibly that what little experience I have gained in former years will not answer my purpose for this season, and the difficulty is increased by the fact that so much is said about the treatment, and so many remedies and medicines are given for the treatment of it, that in approaching it I look forward to some one thing or another which shall be given to me as new. And yet notwithstanding my ideas are somewhat narrowed into a certain channel, I receive with some degree of enthusiasm anything that is new which has been offered for the treatment of the disease.

I recollect a good many years ago when I was a pupil of medicine, that the books which I read were pretty much the same style in reference to the treatment of this disease, as if they had been formulated in the same mould, that is to say. the treatment was heroic. There was an old-fashioned way of giving mercurials, and while no doubt mercurials have been of very great injury, there was an idea in the treatment that it was an inflammatory disease, and it was our duty to use blisters and counter-irritants of various kinds, and possibly even the application of leeches or the employment of bleeding, it had even been suggested that the patient should be bled from the jugular vein. I have always felt inclined to use mild mercurials, although by no means to the extent that is advised by these old writers. I think however that if used properly they do some good, strange to say the writers and practitioners have gone against the use of mercury. Perhaps this is due to the way in which the drug was used, of course it should not be used except with great caution.

In the last edition of his work upon diseases of children, J. Lewis Smith speaks of the use of mercury, in fractional doses, half a grain, or less, once or twice a day, but states that he himself has had no experience in the matter.

In the earlier edition of Smith's work, he does mention the use of mercury in this particular disease, and also in membranous croup, but he has abandoned it entirely in other diseases of children or almost so. So Eustace Smith, Goodhart, and others hardly refer to it, or refer to it in a very cautious way. This may be the result of the abuse of mercury in former years. There is, however, still a tendency on the part of some physicians to use the drug as in former years, and I think there will gradually be a return to its

use in the treatment of diseases of children, especially such as cholera infantum, membranous croup, diphthertiic croup and meningitis.

I use this drug to some extent in the treatment of acute forms of inflammatory reaction which takes place in summer complaint, in the acute character of the disease.

There was another point which came to me in the very early years of my practice, which was forced upon my observation, and it suggested itself to me this evening. It has doubtless been observed by all present that summer complaint is coincident with hot weather, and that we expect to see it continue throughout the summer. A case which I treated in the earlier years of my practice, comes to me now. I used mercury, but the patient didn't seem to improve. It seemed to be going down hill as fast as it could. And the result was that I despaired, and the parents despaired, and I wondered that they retained me. The child was emaciated to the last degree. The father in taking the baby out one morning, carrying it around so that it might get the fresh air wandered into a grocery store. There was absolutely nothing that the child would eat. It would perhaps take a mouthful of water or so, but seemed to have a disgust for all kinds of food, and the father noticed on entering the grocery store, that the child on looking about saw something which attracted its attention. It was a cheese, and it brightened up and extended its hand to the cheese, displaying an evident desire for some of it. As the child had had no appetite for a long time, and seemed to be almost at death's door, the father thought that there could be no harm in giving it some of the cheese, although he did not suppose that it would benefit the patient in the least. The child evidenced a most extraordinary voracious appetite for the cheese, and ate, and ate to repletion. Of course the result expected was an aggravation of the trouble, but the father consoled himself with the thought that the child could not be much worse than it was. Strange to say, from that moment the child began to improve, and there never was a relapse in the case. This seemed to me a rather remarkable result, as cheese was something that I would not have dared to give in such a case.

I think this indicates a point in the treatment of the trouble. It shows that there are a great many instances in which we must consult, from day to day the condition of the patient in determining what kind of food shall be given, and very often if our patients show any desire for a particular kind of food, that is pretty good evidence that we should gratify his desire, and that the food would be beneficial to the patient. Of course a great many of these patients cannot digest anything but the very lightest food. I think we should give them water, and sometimes nitrogenous substances are beneficial, such as sugar, fat, etc. Very often fat is necessary to the proper nutrition of the child, and we may get rid of a good many troubles in that way. I have even gone as far as to place a dish of butter before a child and let it saturate itself thoroughly with the fat.

However that is not the medical treatment of the disease. We must consider each particular case which is brought before us and treat it according to the symptoms which are presented.

There also comes with the simpler forms of the trouble another which is to my mind a very common form of the disease, but which is not to be treated as we are accustomed to treat it, by astringents or tonics or laxatives or what not. A good many years ago—it was not a cholera year,—a child a year or so old was taken with cholera, as expressed by vomiing and purging, and it was reduced very much. But as we all know cholera kills very rapidly. However that child did not die. It was in a very emaciated condition, had cold extremities, and the head was exceedingly hot. There was restlessness, rolling of the head with very cold extremities, constant vomiting and purging, and I found the child had to be treated otherwise than as a case of cholera—we knew nothing of bromide of potassium at that time. I followed the rule of giving opium, and there being an extravagar

thirst and thinking it was a forlorn case, I gave the child water to drink and applied ice to the head; to my surprise there was a reduction of the temperature about the head and a rapid recovery followed. This brings me to the treatment which was suggested by a paper, which was read before the society the other evening.

The acute form of cholera infantum is decidedly an inflammation of the mucous lining of the intestines. We have a sudden onset of the disease, there is a great deal of heat about the head, thirst, contraction of the pupils, and restlessness of the child, and there is a constant, peculiar motion, a tossing of the head to and fro, seeking some place where it would be comfortably cool. There is no question about the propriety of treating this condition as an urgent fever; it is a kin to that particular kind of disease called sun stroke. I think we may consider it as sun stroke in the child. It is possibly a paralysis of the vaso-motor system.

The treatment of the disease, sunstroke, is according to the condition which we find. We are accustomed to make cold applications externally to the head. I have long been inclined to consider summer complaint of which we find so many cases, where there is very great heat, as being essentially a heat disease and akin to sunstroke. We ought to satisfy the great thirst to the extent mentioned in the paper on that subject the other night. That is, to the extent of saturating the child with cold water, reducing the temperature, and supplying to a considerable extent the loss of fluid of the blood. Nothing else than cold water will probably be borne. There is no alimentation.

The water may be returned, but if so, we should give more. The cause of the vomiting is reflex, and we must act upon it accordingly. In such cases cold should be applied to the head. I have seen with what exquisite comfort the child will nestle down in the ice bag and go to sleep. Of course the applica- of dry cold, by means of ice in a rubber bag, is preferable. I have seen almost immediate results from the use of these ice bags; from the moment which they are used it seems as if the vomiting and purging would cease, and the patient become quiet, and the reflex action pass off. Of course the bromide of potassium may be given in connection with the use of the ice bag, and this is all that is necessary. That is the kind of medical treatment which I think we can use with propriety. The antacids are not necessary, although where there is a chemical indication for them they may be used. So also may the stimulants in the form of ammonia, or it may be of brandy or whiskey or any other form that you may choose to use. I do not think it is well to use more medicine than is necessary. I do not know any disease that requires more judgment and knowledge of therapeutic agents and more knowledge in their selection than the trouble under consideration. In a great many instances, as I stated, very little alimentation can be employed.

Dr. Bremer.—I missed one very important point in this matter of treating summer complaint in children and that is this: suppose the mother's milk can not be obtained and that it is decided to employ cow's milk, how are the cows to be treated. I think that is a very important point. If the cow is allowed to run at large, she is not apt to always make a proper selection of food; cows get sick from over-feeding—over-boading the stomach and from eating substances that are harmful. When I was in Europe, I found that in almost all the large cities these cows were fed on dry food exclusively. These cows led very hygienic lives; they were not allowed to romp about; they were washed and scrubbed, and allowed only a certain amount of food, and no more. Now the objection will probably be raised that it is not natural for cows to live on dry food, but when we look at the way horses are fed, exclusively on dry food, and see that they are healthy, it will be seen that it is not so unreasonable to infer that cows can be kept healthy on dry food; at all events there is a very uniform article of milk obtained when this is done, and an article which is free from any purging substances. It is a milk which is not so apt to undergo

decomposition. (This has been experimentally established.) I do not know that any such establishment exists here in St. Louis, but I think it would be a great improvement on the old plan.

I also desire to refer to another procedure, which has of late obtained quite a reputation for its prompt effect, that is, the washing out of the stomach by means of the stomach tube. There is nothing easier than that. I have treated children for catarrh of the stomach by this method, with remarkable results, especially in chronic affections. I must say, I found it very successful. The heat, fever and general malaise of the child is in most instances produced by a decomposition of the nitrogenous material which lies in the stomach. The first duty of the physician is to remove this substance, and how is it to be done? Sometimes nature will relieve the patient, but if not, it should be washed out with the stomach tube.

Dr. Johnson.—What do you wash it out with?

Dr. Bremer.—Simple water.

Dr. Johnson.—At what temperature?

Dr. Bremer.—I don't think the temperature plays a very important part. The main object is to remove the decomposing material in the stomach, the undigested material. As soon as any new food comes in contact with the decomposing matter in the stomach, the new food will be decomposed, and the work of fermentation will be continued.

Now a word as to the reflex theory of these troubles. I believe that is the simplest way to look at the production of the fever, that is by the absorption into the blood of the products of decomposition. Decomposition in the stomach will set up heat, a general fever, and I do not believe we need call into requisition the theory of reflex action. It may seem strange that I speak on this subject with which practically I have nothing to do at present, but I think I am entitled to an opinion, because I have treated these cases myself in former years, and it is one of the most important classes of cases we meet with.

Dr. Hendrix.—The papers which have been read this evening present for discussion a very important subject, inasmuch as the mortality from summer complaint is very great among infants. In 1883, 84 and 85 in New York City the deaths numbered over 9800, and most of the deaths were in children under five years of age. In the city of St. Louis during the last eight years there have been from cholera infantum alone over 1900 deaths; that is since 1880. In the year 1880, from May 8 to August 21 there were 271 deaths from cholera infantum; in 1881, from May 5th to October 31st, 395 deaths; in 1882, from May 1st to September 30th, 211 deaths; in 1883 from June 1st to September 30th, 246 deaths; in 1884 from June 1st to September 30th, 248 deaths; in 1885 from June 1st to September 30th, 202 deaths; in 1886 from May 31st to September 30th, 154 and in 1887, from June 1st to September 30th, 196, a decrease of about 100 per cent since 1881.

As regards the etiology of the disease I have but little to say. We have to treat each case as we find it. In regard to the medicinal treatment there is a difference of opinion. Some physicians use calomel; others go on the expectant plan, while others treat the symptoms as they arise. Dr. Smith says cholera infantum may be preceded by diarrhea, but it is not cholera, up to the time of the watery discharge. The latter he says may recover in a very short time or pass on into chronic diarrhea. It is not cholera infantum after the acute symptoms have passed away.

I find that some gentlemen have been using cold water for quite a while in this disease; I find others have begun to use it recently. I am glad to find that Dr. Love agrees with me in regard to the treatment of the trouble, as is evidenced by his treatment of the case which he had this morning, and I hope that the gentlemen here present will try the treatment. I believe they will be successful with it.

Dr. Hughes.—I have read the paper of Dr. Hendrix with a good deal of interest. His method of procedure, however, is not a new one to me. Cholera infantum is the cholera

morbus of infants. The child is in that state in which the vital nerve centres are assaulted and they have succumbed to that assault. The time has gone by when men smile at the part which the nervous organism plays in the phenomena of disease, and the time is fast approaching and now is when neural pathology in its relationship to disease will reign paramount. It requires but a limited knowledge of the physiology of the organism to know that the chief difficulty encountered in a case of cholera infantum is much like that which you encounter in a case of cholera nostras, or a case of cholera Asiastica, the physiological symptomatology being quite the same; the difference being in the causative influence. The vaso motor organism is assaulted and collapsed. When the child suffers from the prostration of cholera infantum, no one doubts the propriety of giving the child a reasonable quantity of fresh air and of having cool, fresh air brought in contact with the surface, because it has a stimulating influence on the peripheral nerves and produces a contracting influence which is transmitted through the vaso-motor organism, and contributes toward restoring tone to the system and restraining aqueous exudation. When Tait administered a few drops of cold water to a child internally, (as Dr. Hendrix tells you he does more than a few drops, and repeats the process notwithstanding it is rejected by the stomach of the child,) he produces a peripheral impression upon the terminal nerve-endings within the stomach that exercise its power, for the time being, upon this neural organism, which is disordered, and whose tonicity is so essential to the restoration of the child.

There are conditions in cholera infantum, as well as in cholera morbus, and cholera Asiatica, when the organism is so collapsed; when the central ganglionic system is so exhausted that not even a drop of water will be absorbed. When, however, cold water is introduced in that way, it produces a tonicity that brings about a power of absorption. You might as well put your mercurials down a rat hole in the floor, as to expect them to be absorbed in certain stages of cholera collapse. I have treated a good many cases of cholera infantum, and I am satisfied that without taking care of the collapsed state of the nervous system, you can not resuscitate it.

An old practitioner, a good many years ago, when I was a boy, called my attention to the value of creosote in cholera infantum, and I have had occasion to be thankful for the suggestion ever since. If you take a drop of creosote, a drop of oil of cloves, a drop of the essence of peppermint, a dram of glycerine and put them together in a menstruum, with a dram of brandy and three drops of laudanum, and make an ounce mixture, and give your little patient, if it be six months old, ten drops of the solution, and repeat it at proper intervals until the vomiting ceases, I will guarantee that you will be most thoroughly gratified with the result, and if in addition you will inject into the rectum hot water, as hot as it can be borne, which will produce its proper stimulating effect upon these relaxed vessels, just as you would treat a case of critical hemorrhage or any other discharge in which the whole of the vaso-motor organism is relaxed, you will have the satisfaction of seeing beneficial results.

Dr. Love.—I would not speak at all except that my case of this morning has been diverted in the direction of an endorsement of the position taken by Dr. Hendrix in his paper. Regarding the question of the use of cold water in cholera infantum, or cholera morbus, or sporadic cholera, the part of the paper of Dr. Hendrix which is true, is not new; the part that is new, is not true, in my judgment. In two books that I have examined (and it may be others which I have not had time to look at) we are told to use cold drinks in this trouble if the indications call for it. That is the part that is not new. The prophylactic effect of cooling drinks in the summer time to infants is known, I judge,to every member of the medical profession. It is not sufficiently known to the laity.

The point in this paper which is new, and which in my judgment is not true, is the application of the idea in a sweeping and gen-

eral way. It is going too far, in my judgment, to say that this is the remedy in all cases of cholera infantum, no matter what the symptoms may be, how great the depression, or the degree of collapse. We all know that we are called to cases in which the temperature is below the normal; where the collapse is so great that the child is pulseless; where it is comatose and can not swallow; where stimulation by heat externally and the injection of hot water as Dr. Hughes has stated, are indicated. To say that such cases as that can be cured by free libation of ice water is, I take it, extravagant. The citation of the case which I reported as strengthening and endorsing the position of Dr. Henrix's paper is certainly a mis diversion. I did not mention all the treatment. I will state that if I had not administered hypodermically morphine and atropine and put hot bottles to the ice cold parts and stimulated the patient externally by hot baths of whisky and hot water, I believe the cold ice water that the child drank would have accomplished no good effect.

Dr. Martin.—Persons exposed to air that is filled with decomposing animal and vegetable matter will frequently be attacked with diarrhea and vomiting. It is only an effort on the part of nature to get rid of the poisonous elements. In regard to the medicinal or dietetic points spoken of by Dr. Love I regard this disease as coming within the scope of the old time adage that "an ounce of prevention is worth a pound of cure." It is a fact that few children who are fed upon the healthy breast are affected with the trouble. If heat alone would cause the trouble, I do not understand why breast fed children should not take it.

Dr. Hughes.—You do not have the disease in winter do you?

Dr. Martin.—No; and we do not have vitiated emanations from the soil in winter. We have children fed with cows'milk affected with the disease. We know that children raised in the country do not have the disease, so it is reasonable to conclude that vitiated air causes the disease. We know that milk is very apt to become poisoned by being exposed to vitiated air; we know it is very susceptible. When milk is placed beside vegetables, it will absorb the odor of them; it is a good culture field for all forms of bacteria. Now in regard to the treatment. We are not discussing cholera infantum but summer diarrhea. This is very rarely attended with violent vomiting. I see no reasonable objection to the use of mercury in the incipiency of cholera infantum—when there is diarrheal trouble or even in the first stages of cholera infantum. The object, it seems to me, is to carry off poisonous ptomaines.

Dr. Bremer's suggestion about washing out the stomach and Dr. Hendrick's suggestion about giving large quantities of ice water, seem to me to amount to about the same thing. I think it is proper to wash out the stomach.

When I am called to case of this kind, unless the patient is in a collapsed or very debilitated condition, unless I am well satisfied that the intestinal tract has been evacuated, I use a purgative the first thing. Unless there is urgency in the case I frequently prescribe a mild dose of bichloride of mercury. I think it is a mild purgative and believe it has some anti-germicidal properties. I give milk, and barley-water and frequently some of the prepared foods, and my experience has led me to prefer Nestle's food. I think it is less apt to produce diarrhea, as it contains less sugar. I frequently use antiacids or antifermentatives, bismuth in some of its various forms and usually in the form of an emulsion; I also frequently give carbolic acid in one-ninth or one-twelfth of a grain doses.

SELECTIONS.

THE ELECTRICAL TREATMENT OF DISEASES OF THE UTERUS.

BY SIR. T. SPENCER WELLS, BART., F.R.C.S.

I have had, perhaps, a longer and more varied experience than most men in dealing with uterine diseases, especially those which are characterized by overgrowth. I have so

constantly had to regret the inefficacy of medical treatment; and the results of surgical operations, though sometimes brilliant, have often come so short of my desires,that I have for many years past fallen into a frame of mind readily disposed to listen to any suggestion of a mode of treatment which offered a reasonable chance of success, and avoided the risks and perils attending the bolder practice. So, when reports reached me from Paris of what Dr. Apostoli was teaching and doing, they came with a welcome ring.

Electro therapeutics were no novelty to me. More than thirty years ago I had put galvanism to the test, and had gatherdd in various ways evidence of its potency both in destroying and repairing tissues. What I had learned of the treatment of ulcers by galvanism was published in 1849 by Golding-Bird, and may still be read in an appendix to his book; but his son and Mr. Nunn are the only surgeons, so far as I know, who have made much use of the practice.

Not long afterwards I tried the galvanic stem pessaries of Simpson in amenorrhea,and have used them until now with occasional good result. I knew also what Radford had done with galvanism in the treatment of uterine hemorrhage, and what Simpson had taught as to the influence of galvanism on uterine contraction in labor. I have repeatedly made use of the galvanic cautery in various ways, and have very often removed masses of epithelioma, or the cervix uteri itself, by a platinum wire heated by a battery and used as an écraseur, with very satisfactory results. Quite recently, with Dr. Goddard, of Highbury, I removed a cervix uteri without the loss of one drop of blood. My attention was later on attracted to the electrical work of the French and American surgeons is reference to fibroid tumors of the uterus. This was so little satisfactory that it dropped out of notice. Our English experiments were not more encouraging, and surgical enterprise seemed destined to throw into the shade all less dazzling endeavors.

In the meantime, taking up the idea of the wonderful influence of galvanism upon the nutrition of tissues, Apostoli was unobtrusively resolving the problem of its right application in the treatment of abnormal growths and exudations. His published observations were so interesting, and the reports of eye-witnesses were so confirmatory, that in the autumn of 1886 I determined to see and judge for myself. I went to Paris, and was received frankly and cordially. Dr. Apostoli explained to me his views, and demonstrated his mode of procedure. He threw open the records of his daily practice, and gave me the opportunity of verifyng his diagnosis, and witnessing his treatment of the cases actually under his care. Besides this, he mustered for my inspection about sixty of the patients who had passsed through his hands. I heard many of their histories in their own words, and could contrast for myself their actual condition of good health and activity with the symptoms reported in the early notes of their attendance, and the deformity represented in the plaster casts of their bodies, taken before the tumors had been influenced by the galvanic current. I spent many laborious hours in what I may say was a rigidly sceptical examination of the evidences before me, seeking for weak points in the system and the resolution of theoretical objections.

The conviction was irresistible that, though the method might not have reached its point of perfection, the work, so far as it went,was good. If the women were not radically dispossessed of their tumors, they were symptomatically cured. Nothing but prejudice could have turned the back upon the facts; and it would have been unjust not to put the matter to further proof. This I have unhesitatingly done. If I have hitherto been silent, it was because I did not wish to prejudge the case. But I have not been inactive, for I wished that if the utility of the method could be made as manifest here as elsewhere, it should be advocated impartially, and presented to the profession upon reasonable grounds.

The uterine diseases which come under Dr. Apostoli's care range through all degrees of

fibroid development. He has to deal, as we all do, with simple cases of sub-involution, general hypertrophy of the organ, with metritic deposits all round, polypoid excrescences in the cavity, thickening, more or less irregular, of the walls, and sub-peritoneal outgrowths expanding into abdominal tumors. Practically all these cases group themselves into two classes; first, those which give no trouble and may be left alone; and secondly, those which threaten health and life by loss of blood, or, by mechanically interfering with the organic functions, cause a multiform series of distressing symptoms.

In the treatment of these conditions, instead of scraping and cauterizing the cavity with a curette, or caustics, or fire, Apostoli does the same thing with a pole of the galvanic battery. We give ergot, or mercury, or iodine, or bromine in the hope of altering the nutrition of the diseased mass, he sends a disintegrating current through it. We castrate to cut short a woman's sexual existence, he seeks to quiet down neurotic sensibility, and induce regularity of ovarian function. Where we proceed to a root and branch extermination, he proposes a denutritive paralysis of the uterine substance. Time will show whether, and how far, he surpasses us in his results.

But the novelty at present is not so much in the fact of electricity being used, as in the mode of using it. Others have tried the same means, but not in the same way, former methods were uncertain dangerous, and insufficient. The point that Dr. Apostoli has arrived at is this; he has studied the effect that certain currents will produce, he measures the intensity of the currents, and he has found the means of safely directing them, of proper force through the diseased tissues, to ensure the partial if not complete disorganization of these tissues with the desired coincident relief of suffering, and often with restoration of general health.

It is the continuous galvanic current which is generally brought into action. For this purpose the operator must be provided with an apparatus which will guarantee him an unfailing current of at least 250 milliampères, or electro-therapeutic units. I may say, in passing, that it may probably be found convenient to speak of milliamperes as "units" of current strength—10, 20, or 60 milliamperes, for example—would be 10, 20, or 60 units. In practice at the hospital or the surgeons's residence, a battery of Leclanche cells answers admirably. It is enduring and easily manageable. For work at the patient's home a portable battery of the bisulphate of mercury is convenient, but it requires great care and frequent renewal. An indispensable accessory is the galvanometer. With a fractional deviation it gives a measures of the intensity of the current passing. The graduation should rise to 250 units or milliamperes, though this intensity is rarely wanted. Before every operation the perfect working order of battery, galvanometer, and conducting wires should be ascertained. As it is a characteristic point in the Apostoli practice that the galvanic current should be carried either into the cavity of the uterus or into the substance of the tumor, appropriate sounds and trocars are essential. To avoid loss of power by action on the metal, the sounds are made of platinum. For punctures with a negative current steel trocars are equally good, but when it is intended to transmit a positive current, a certain length of the sharp end of the trocar must be of gold. All that portion of the sounds and trocars passing through the vagina from the handle of the instrument to the mouth of the uterus or point of puncture must be insulated. Before every examination or operation the closest attention should be given to antiseptic precautions, both as regards the patient, the operator, and the instruments. During the whole course of the treatment vaginal irrigations, with sublimate or phenol, are never to be neglected.

The labors of Apostoli have expanded and given a definiteness to our knowledge of the special power of galvanic currents in the treatment of uterine diseases, and of the mode of applying the currents in a way which I may thus resume.

In the first place, we have learnt from him

better to understand the double action of the uninterrupted, continuous, galvanic current. The one action is purely local, and coincident with the flow, the tissues immediately in contact with the pole which delivers it are decomposed, the bases and acids of the substances and fluids acted upon are set free,and,according to their nature, produce cauterization of the surrounding parts, independent of any thermic influence. This effect is local, immediate, and visible. The second action is due to the interpolar passage of the current. It is a trophic action influencing the nerves, vessels, and lymphatics, followed by molecular changes, so as to modify the nutrition of the tissues through which the current goes, and varying according to the pole employed. The effect of the direct, and of the secondary counter-current is durable, and, whatever may be our interpretation of it, it is remedially of far more importance than the mere galvano-chemical cauterization.

Secondly, though the coagulating power of the current passing from the positive pole was know from the writings of Ciniselli and A. Tripier, we have had disclosed much more since as to the distinctive character of the action of the currents from the two opposite poles. It was with the positive current that Apostoli began his attack upon uterine fibroids, because of the more striking nature of the hemorrhagic symptoms, and it was the speedy relief of this grave trouble by the production of a hard, dry eschar, and resisting cicatrix, which encouraged him to perseverer. The eschar resulting from the alkaline caustic action at the negative pole is just the contrary, softening and liquefying, and tending to promote discharge and hemorrhage. Logically enough, its dissolvent powers were applied to the opposite class of cases, where there was no hemorrhage, and the object was rather to reduce the bulk and solidity of compact masses of fibroid material. Experience has proved this to be as good in practice as in principle. The positive pole is therefore designated as "anti-hemorrhagic" or "hemostatic," while the words "hemorrhagic" or "denutritive" are applied to the negative pole.

Thirdly, Apostoli has taught us a much more satisfactory way of utilizing these current, in uterine diseases. His predecessors had used currents which were generally uncalculated and ineffective. They were often not strong enough to do much good, yet at other times sufficient to bring about mischievous results. They were brought into play in an ill-judged fashion, and, when used by means of puncture, the punctures were made through parts which ought to have been left untouched. Now the operation is performed under such control as to be a matter of measurable certainty. A strong and regular current is at command. By means of the galvanometer a knowledge of the exact intensity of the current employed is insured. The dosage can be regulated in proportion to the cauterizing and trophic effects considered necessary. A current of high intensity can be made to traverse the tissues inoffensively and brought out through the abdominal integuments in a dispersed fashion, without more than a temporary blush, and made to complete the circuit through the cutaneous electrode imbedded in wet clay. Than this clay, nothing as yet has been found more effectual. Then, by insisting upon the intra-uterine introduction of the current by means of the uterine sound, or its direct interstitial application through the inattackable trocar, a certainty of action is obtained which was otherwise out of reach. The whole performance is thus strictly at the will and under the control of the operator, who, granted his mastership, wants no other guide either as to the dosage, direction, or duration of the current than the facial expression of the patient, or her declaration of tolerance.

Fourthly, other important points upon which we have clear and definite information are the modifications which this treatment requires according to the varying nature of the cases, and the successively changing circumstances of each case as the treatment is going on and the wide range of uterine affections to which it is adaptable. Given a tumor and a current, there is no such thing as reciprocal automatic action. At every step of

the process of cure, deliberation, judgment, and promptitude of resource are challenged. One day there is an unaccountable power of endurance, another an exaggerated sensibility,one day a perplexing structural resistance, another an easy flow of current, all which have to be taken cognizance of and throw an ever-recurring strain upon the mindfulness of the surgeon, enough to baffle book guided novices, and make inestimably valuable the more than five years' experience to which we can recur for counsel. A field, too, is opened up for exploration among the infinitely multiform presentations of disease of the female generative organs, untraversable by the limited powers of any one man, but to which Apostoli has pointed the way. This will be the work of the coming generation.

Lastly, there are several interesting questions upon which the work of Apostoli has thrown a new ray of light, such as the dangers and difficulties of the procedures; their being a cause, or the reverse, of subsequent sterility; the practicability of applying the treatment in cases where the uterus is impenetrable; the permanence of the benefits derived from the treatment in the mitigation of the symptoms and the reduction of the tumors; the relation of the menopause to the production or dispersion of fibroid enlargements. It would take up too much of your time if I were to consider these in detail, and it is needless, as Apostoli himself is here, on the invitation of your president, to give any required information.

But, admit that there may be danger in treating our patients by electricity. Is this a reason for rejecting it? What surgical operation is free from risk? Would common sense sanction our leaving disease alone till science has reached completion and skill infallibility? The danger lies not in the method but with the operator, and the moral is, that no man should undertake this work till he has qualified himself to do it well.

Then, as to the permanence of cure, where cure there has been, one can only say that though five years and a half is but a short term to form estimates upon, when we are assured that during that time the return of symptoms, or the necessity for further measures has been quite exceptional, it augurs well for the future, and the objection of the possibility of relapse becomes of little weight.

Again, when Apostoli tells us that some of his patients now under treatment are women in whom the tumor developed after the menopause, no trace of such a growth having previously existed, what are we to say to the principle of Hegar's operation? To say the least, it would limit castration in the treatment of uterine disease to the cases where loss of blood is the prominent symptom in younger women. I might go on much further, but I think I have said enough to show that whatever may be, or may not be, the merits of Apostoli's method, we have made since he began his work a distinct scientific advance. And coupling the specific information we have thus acquired with our previous diagnostic tact and pathological exactitude, it appears to me that we are in a better position, even supposing that circumstances hinder the personal practice of the method, not only to discuss the abstract principles upon which it is based, but as consultants to pronounce upon its respective applicability to the cases submitted for our opinion.

There are conditions of fibroid tumors in which it would seem to me almost idle to suggest electricity. A polypoid growth from the mucous surface of the uterus projecting into the cavity, or perhaps through the os, can be so easily and expeditiously taken away that I should not think of any slow or gradual process. Neither does it appear very probable that a subperitoneal outgrowth from the body or fundus of the uterus could be in any great degree affected by any current that could be made to reach it. Myomotomy would be the work of minutes, and the risk scarcely worth mentioning. Even large solid tumors, the removal of which means the removal of a great part of the uterus, have been successfully removed by me and by others, and success has increased with experience. But the risk must be always great, and there

are tumors so large, or with such intimate connections, that no prudent surgeon would meddle with them. Here, surely, is the occasion for the electrician to show his power. His method is a new resource for a desperate condition, and should be welcomed as such. It has been successful in such cases if not completely so, yet to a degree which has rendered life enjoyable. No weak prejudice should stand in the way of recommending a trial under experienced guidance.

Where the object is mainly to suppress hemorrhages, electrical treatment has decided advantages over other practices. Should the tumor be growing, but not advanced beyond the limits of reasonable surgical interference, balancing the comparative risk, I should be disposed to put the matter to the test; since in case of failure, the more hazardous operation of removal can still be done. In my opinion, with the option before her, it would be neither wise nor charitable to give a patient strong advice iu favor of an immediate cutting operation.

Experience seems to show that there is a group of cases, numerous as they are troublesome, of chronic metritis with enlargement and surrounding deposits, which may be cited as pre-eminently eligible for electric treatment. They are, as regards the patient, painful and exhausting. To the judicious surgeon they are exasperating by their rebelliousness, and in some rash hands they have opened the way to practice more lamentable than the disease. It will be one of the crowning merits of electro-therapeutics if proved to be equal to bring relief to these patients. Recent reports give good reason to hope that this end may be realized by a careful use of the positive galvano puncture.

We have not, I am inclined to think, taken heed enough of the work of Tripier and Apostoli in reference to various disordered states of the uterine appendages. The soothing effect of the vaginal or uterine bipolar application of the induced current in some distressing forms of ovarian neuralgia and vaginismus is said to be marvellous and enduring.

As a last word, I may say that we are face to face with an important revival; and though some American surgeons have gone before us in its acceptance, nowhere more than in our own country has there been shown an open-minded readiness to weigh fairly all the evidence which Dr. Apostoli has to set forth in support of his system.

In London we have heard, through the medical journals, of some failures, of one death, and of more than one accident, probably due to the inexperience of the practitioners. But we have far more encouraging reports from Edinburgh; and if some member of this Society who combines sufficient knowledge of electrical science with practical experience of the diagnosis of uterine diseases, and of the treatment by other methods, will carefully put to practical test the conclusions already arrived at by Dr. Apostoli, I am very hopeful that the result will not be disappointing.—*Brit. Med. Journal*, May 12.

In Giving patients instructions of any kind it is not only necessary to tell them what you wish them to do, but to see that they understand what is told them. Dr. Singer, of Galveston, Texas, writes the *Med. Rec.*, of an intance in which he told a german not to swallow a thermometer which was placed in his mouth. The patient misunderstood the instructions and swallowed the thermometer. Prompt emesis restored the instrument to its owner unbroken. This is the first instance since the days of St. Martin that the temperature has been taken in the stomach.

A Correspondent to the *Med. World*, recommends to its readers that "contagious ophthalmia in all stages" be treated "with yellow oxide of mercury ointment." We wonder whether it is catarrhal, simple purulent, gonorrheal, or some other form of "contagious ophthalmia" of which the *World's* correspondent writes. He evidently does not mean trachoma, as he says he has never seen granulated lids follow this treatment.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 5. ST. LOUIS, AUGUST 4, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

OPHTHALMOLOGY.

BY R. L. THOMSON, M.D.

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TOBACCO AMBLYOPIA.

In the *Lancet Clinic* Dr. A. R. Baker, of Cleveland, O., reports some interesting cases bearing upon the much disputed question as to the effect the use of tobacco has upon vision. His first case used alcoholic stimulants moderately (?) and smoked from forty to fifty cigars a day, besides using his pipe between times. No changes were detected in the retina or optic nerve, but his vision was reduced to $^{3}/_{200}$ in either eye. By reducing the amount of tobacco used to six cigars per day, in one month's time his vision increased to $^{20}/_{100}$ in left eye and $^{20}/_{70}$ in the right. At the end of five months his vision was $^{20}/_{70}$ and $^{20}/_{50}$. He increased the amount of tobacco used, and at the end of one year his vision was $^{20}/_{100}$. He again returned to six cigars a day, and his vision increased to $^{20}/_{50}$. In this manner he has changed from time to time for eight years. The loss of vision seemed to bear a direct proportion to the amount of tobacco used.

The second case was a teetotaler, but addicted to the morphine habit. By stopping the use of tobacco, but not that of morphia vision improved. He was put upon strychnia and bitter tonics, and advised to quit tobacco. At the end of a month his vision was worse, being only $^{5}/_{200}$. At this time it was discovered that he was using even more tobacco than before. The use of tobacco was stopped, and at the end of a month his vision was $^{20}/_{70}$. No change had been discovered in the nerve or retina.

In the third case reported by Dr. Baker vision was reduced to L$=^{10}/_{200}$ and R$=^{20}/_{200}$. By prohibiting the use of tobacco, at the end of three months his vision was increased to 20-70 in either eye. Three other cases reported gave similar results.

The peculiarity about Dr. Baker's cases is that no pathological change was found in the optic nerve. He summarizes his conclusions as follows:

1. There is a toxic amblyopia due to the excessive use of tobacco.

2. That the excessive use of alcohol or other toxic agents does not produce the same or a similar amblyopic condition, although by their depressing influence on the vital functions they may serve as predisposing causes.

3. Tobacco amblyopia does not usually lead to total blindness. The disease is essentially a functional one. Gross pathological changes have not been demonstrated, either in the retina, optic nerve or cerebral centers.

4. The course of the disease may result in a certain amount of failure of sight and then remain stationary, even though the tobacco habit be not entirely given up.

5. Stopping the use of tobacco will result in recovery of sight without the use of specific medication, although the use of strychnia and tonics, by increasing the general tone of the system, may hasten the cure. The moral effect of taking something to replace the loss of the tobacco is of great value.

I have seen a number of cases of so-called tobacco amblyopia, but in every case the patient was a user of alcoholics as well. In those cases in which the only symptoms were diminished vision and hyperemia of the optic disc, marked improvement followed the non-use of stimulants (tobacco and alcohol) and the hypodermic injections of strychnia. But in those cases in which paleness of the nerve gave evidence that atrophy had taken place, without exception, no improvemeut occurred, though I have pushed the strychnia to its marked physiological effects, giving in some cases one-fourth of a grain daily.

Mr. Edgar Browne, of Liverpool, reports three cases (*Lancet*) of optic atrophy occurring in three brothers who were users of tobacco. These were cases of "typical skim-milk atrophy, with attenuated vessels." No improvement took place. Mr. Browne remarked that these cases were closely related to the hereditary optic atrophy of Leber, but the determining cause was, undoubtedly, the use of tobacco.

The Tarsocheiloplastic Operation for the Cure of Trichiasis.

Van Millergen (*Ophth. Rev.*, Nov., 1887) describes his operation as follows: The intermarginal space is split from end to end sufficiently to produce a gap 3 mm. in breadth at the central part of the lid, and gradually becoming narrower toward the canthi. The gap is kept open by sutures passed through folds of skin on the upper lid, by means of which the latter is prevented from closing for twenty-four hours. As soon as the bleeding has ceased, a strip of mucous membrane of the same length as that of the lid, and 2 or 2½ mm. broad, is cut out from the inner surface of the lower lip, and placed at once in the gap at the intermarginal space. It should be pressed *in situ* with a pledget of cotton soaked in sublimate solution. Sutures are superfluous. The lid operated on is then covered with a flap of linen coated with a thick layer of iodoform vaseline, and this is covered by a layer of cotton. Both eyes should be bandaged, and the bandage should be renewed once in twenty-four hours. The sutures in the upper lid must remain for two or three days.

Specific Iritis.

In the *Lancet-Clinic* of June 9, Dr. C. W. Tangeman calls attention to the well-known fact that syphilitic iritis has no special characteristic by which it can be distinguished from other forms of inflammation of the iris. He cites two cases to show that no absolute rule can be made for the treatment of this disease, and that remedies heretofore employed in the treatment of syphilis have been so little understood that in the near future the reaction against their use will cause them to be abandoned.

My experience does not corroborate Dr. Tangeman's views. No other remedy at our command yields such satisfactory results in syphilitic iritis as does iodide of potassium. I know of no condition requiring that a patient shall be salivated, and I have seen patients gain flesh and improve in general health while taking half an ounce of iodide twice a day. The rule that I observe is to begin with small doses, well diluted, and increase them gradually till the physiological effects of the drug appear, or the iritis subsides. Of course in all forms of plastic iritis the prime indication is to get a well dilated pupil, breaking up all adhesions, if any exist.

On the Removal of Staphyloma of the Cornea.

Mr. Tatham Thompson read a paper recommending that a curved needle, threaded with horsehair should be passed through that portion of the staphyloma which it was in-

tended to remove; it afforded a ready means of steadying the eye whilst the elliptical incisions were being made, and of removing the portion after they were completed. The edges of the wound usually adapted themselves readily; the parts were then well flushed with a weak solution of perchloride of mercury, and tolerably firm pressure applied to keep them in apposition. The results obtained were very satisfactory.—*Brit. Med. Jour.*

Glioma of the Retina.

Von Grolman, in speaking of this disease in the *Arch. f. Ophthal*, says that retrograde metamorphosis of the neoplasm may appear not only after previous inflammatory action and perforation, but also during the early stages, and that this has apparently been brought about by the administration of mercury. No permanent cure, however, has ever been secured in this way.

Glioma of the retina is a very fatal disease not only to the eyes, but to the life of the patient.

Extraction of Immature Cataract.

Mr. Tweedy, of London, advocates the removal, in suitable cases, of immature cataracts. It is well known that in many cases the vision of patients is reduced so much as to incapacitate them for earning a livelihood, and yet have vision enough to count fingers readily, and this condition may obtain for months even though a preliminary iridectomy has been done. In such cases Mr. Tweedy advocates the removal of the lens. At his request, Mr. E. T. Collins, late senior house-surgeon at Moorfields, prepared the following statistical report of the operations which Mr. T. had done for the extraction of immature cataracts. During the last seven years twenty-nine immature cataracts have been extracted. One eye was lost from late serous iritis and glaucoma, and was eventually excised. Two cases had severe iritis, and in one a small amount of vitreous was lost, but these three and all the other cases ultimately got good vision, except two which were found after the operation to have old vitreous opacities. Needling was required in thirteen of the twenty-nine cases.

Dr. Adolf Bronnor, in writing on this subject, says:

The interesting articles of Mr. Higgens and Mr. Tweedy on Extraction of Immature Cataract (the *Lancet*, May 12 and 19) seems to me to have opened up a very important question—*i. e.*, When is a cataract mature for extraction? The general idea is that a cataract is mature when the whole of the lens matter is opaque, and when the iris, by focal illumination, throws its shadow on the opaque lens. This, no doubt, is a mature cataract from a pathological point of view, but by no means from a clinical or surgical one. Experience has shown that in certain kinds of cataract, in which part only of the lens is opaque, nevertheless on extraction the whole of the lens matter readily leaves the capsule *en masse*. I have recently successfully extracted cataracts in several well-selected cases in which vision was 6-60 or more, and in which the fundus could be distinctly seen. The cases of this kind most frequently seen are cases of typical nuclear cataract, in which the nucleus becomes opaque long before the cortex of the lens is affected, and in which, both by focal illumination and by ophthalmoscopic examination, the opaque nucleus is seen to be distinctly defined from the clear cortex. Of course in time the cortex also becomes opaque. I have operated in cases in which the posterior part of coxtex gradually becomes opaque, whilst the other part of the lens remains clear; also in cases of cortical cataract, mostly in young people of twenty to forty, in which are found peculiar punctate and striated opacities in the otherwise clear cortex. In these latter cases discission is generally performed, and mostly with bad results. In cases in which the cataract is not mature, from a surgical point of view, and in which it is of great importance to the patient to have the cataract removed, the best and safest method seems to me to be to perform a

preliminary iridectomy, followed by Foerster's method of maturing cataracts. In this manner one can in most cases make the cataract mature for extraction in a few weeks, and there is no risk of part of the lens matter remaining in the eye and causing iritis, etc., or loss of vitreous, as there undoubtedly is if any other course of operation is pursued.

The amount of cortical that remains in the eye often depends largely upon the manner in which the capsule of the lens is ruptured. If the cystotome is made to plow up the greater portion of the anterior surface of the lens, the amount of lens matter that will remain after the escape of the lens, will be proportionately great.

Naphthol β in Purulent Ophthalmia.

MM. Budin and Vignal, of Paris, have been experimenting to test the efficacy of this agent in purulent ophthalmia. The *Brit. Med. Jour.* in giving the result said:

They did not feel justified in using it alone, but employed nitrate of silver at the same time in proportions of 1 to 30 and 1 to 1000. The solution of naphthol β was as follows: distilled water, 1000 grammes; alcohol, 1 gramme; naphthol β 0.4 gramme. Eight cases were reported by MM. Budin and Vignal, the first being that of a woman attacked by gonorrheal ophthalmia with chemosis. The other seven were new born babes. A slight epidemic of ophthalmia was observed at the Obstetrical Clinic at the beginning of the month of May; it was due to the fact that the precaution of putting a drop of nitrate of silver collyrium in the eyes of new born babes had been omitted. The most striking feature in the action of naphthol β is its rapidity, the children thus treated did not present any swelling of the eyelids, and the purulent secretion was arrested.

In the case of the woman above mentioned there was neither chemosis nor swelling of the eyelids after two days' treatment. They have also made experiments with animals to ascertain whether the dose of naphthol β administered by them would be efficacious. Naphthol β does not seem to have any bad effects, at the same time, a cutaneous erythema, which broke out on one of the children, made them cautious. If it be remembered that naphthol β is a non-poisonous antiseptic, which does not coagulate albuminoid substances, the satisfactory results are easily explained.

These cases, however, prove but little, as the nitrate of silver of itself is considered almost a specific in ophthalmia neonatorum. The result in the case of gonorrheal ophthalmia was certainly gratifying as these cases are difficult to control.

Aneurism of the Orbit.

Dr. Buller reported a case before the Montreal Medico-Chirurgical Society, (*Med. News*) in which a diagnosis was made of arterio-venous aneurism of the orbit, which was cured by ligature of the corresponding common carotid artery.

Previous to operating it was found that pressure on the carotid caused the pulsation and bruit of the orbital tumor to cease.

Transplantation of the Cornea.

The *Lancet* of July 7, says:

"This operation has been frequently performed, but hitherto without permanent success. Various cases have been recorded by Mr. Power, Sellerbeck, and others, in which the new cornea taken from cat or dog, the eye of which is preferable to that of the rabbit, has formed adhesions and retained its transparency for some days or weeks, but sooner or later the new cornea becomes hazy, contracts to a button, and is finally absorbed or sloughs out, and the patient remains unimproved."

In the *Med. and Surg. Reporter*, Dr. L. Webster Fox describes the condition of the patient operated upon April 29, 1888.

At present writing, July 2, the case presents the following conditions. Right eye: Union of graft perfect, its integrity preserved and covered with corneal epithelium; trans-

parency of graft progressing—central vision increased to counting fingers to four feet; able to attend to personal wants and go about alone in safety; color perception keen. The restoration of transparency has not been general, but stellate, *i. e.*, certain segments began clearing; the center of the graft is the last to show improvement. In looking across the apex of the cornea, one is able to look into the transplanted tissue, proving a clearing down to the middle layers of the graft. If this process of change continue—and we have every reason to believe it will—we shall have the same result that Von Hippel obtained. The cornea surrounding the graft has recently begun to clear, which may become more and more extended, leaving only a narrow circle of connective tissue between graft and cornea.

ORIGINAL ARTICLES.

MENORRHAGIA.

BY J. J. JONES, M. D.

In the consideration of this subject I shall speak of it in connection with metrorrhagia, which in a large majority of cases is dependent upon the same causes, and is productive of the same results. I regard menorrhagia strictly speaking, as a hemorrhage, and that it cannot continue long from a healthy uterus—some disease must exist in the womb or its appendages, whether it occurs at the menopause, or at any other period of life. It is a prevalent disease with the women of this city, as well as with those of the country generally, and one that frequently requires all the skill and tact of the practitioner to treat successfully. I have treated many cases, some of mild character, that were readily relieved, and others of great severity that resisted all treatment until both the patients and myself, were in despair, with regard to favorable results.

There are so many cases that may give rise to this condition that it is often a difficult matter to arrive at a correct diagnosis, and unless that is done, all treatment is, to say the least unsatisfactory and often detrimental to the patient.

Menorrhagia is the scourge of the females of the country at the approach of the menopause, at which time it is met with in its most obstinate form. Making its appearance at this time, however, should not induce us to be less diligent in our investigations into the nature and character of the affliction, but on the other hand, more careful to find the cause, for at this time of life it is often the most prominent symptom of malignant uterine affections. The sufferer is found frequently from repeated losses of blood in a profound state of anemia, weak, wan, and with impairment of all the functions of the reproductive organs. It is not confined, however, to this stage of female life, but occurs at all periods, from the commencement to the cessation of menstruation. It is sometimes the result of a combination of causes, for instance, by heart disease, in which the liver and kidneys participate. In that case all the symptoms consequent on that diseased condition must be noted as well as in the one under consideration.

In the first years after the establishment of menstruation, and previous to marriage, if menorrhagia occurs, it is apt to be caused by excesses, such as late and irregular hours, improper food and dress, or in fact by all the numerous dissipations that young ladies often engage in, that are calculated to derange, excite, particularly, the nervous system, and induce engorgement of the pelvic viscera.

Young girls are frequently the victims of menorrhagia from ovarian hyperemia (which often results from the last named causes,) and if early and properly attended to, is easily relieved, but if not it may become chronic and result in cystic disease, which can only be relieved by surgical operation, in which the organs themselves are sacrificed.

In the married women the causes that frequently induce menorrhagia are excessive coition, excessive laceration, subinvolution of the womb, laceration of the cervix, displacements of every variety, prolapsed, enlarged

and tender ovaries, interstitial and submucous myoma, granular degeneration of the cervix, fungous or villous state of the lining membrane of the uterus. There are many other causes of this affection, but the above array is sufficient to show how important it is to make a careful investigation in every case, that the cause may be discovered, and a rational treatment instituted.

Women suffering from menorrhagia are apt to have metrorrhagia. The two often exist in the same individual, and are the result of the same cause which may be either functional or organic. In a great many instances the discharge makes its appearance as an ordinary menstruation, but if prolonged as well as excessive ends in hemorrhage. In other cases it is hemorrhagic from the first, and sometimes continues from one period to the next (with some modification, of course.) I do not remember to have seen a case of menorrhagia unattended by more or less hemorrhage, which may be readily recognized by the presence of clots or from the blood being coagulable after its escape from the vagina.

Many difficulties frequently attend the investigation of cases of menorrhagia. It is true, a majority may be properly diagnosed, yet others are met with in which the hemorrhage is not so easily explained. It is at times difficult to differentiate between menorrhagia and abortion at an early period of pregnancy, and unless you have had an opportunity to examine the discharge you may fail to discover the true cause. In obscure cases, when the womb is not at fault, you may find that the liver or kidneys are. Or a constipated and impacted state of the bowel may give rise to it. A depraved condition of the blood and a depressed mind from mental disturbances are also causes of this trouble. Tubercular subjects are particularly prone to these excesses. Among shop girls and saleswomen of the city, we find it a common affliction. Being on their feet from early morning until frequently late at night, must favor pelvic congestion, and be a prevalent cause of excessive discharges, not only at the menstrual period, but also during the interim.

The list of causes in this disease might be increased almost indefinitely. So the physician desiring success in this field of labor must not fail to acquaint himself as thoroughly as possible with the etiological and pathological bearings in each case that presents itself, which may enable him to fathom many of its depths and bring to light many dark points connected with this subject. Although a great many general causes operate in the production of menorrhagia, it is more frequently the result of local causes which we should not overlook in our search for general ones. Those causes denominated functional, frequently lead to organic disease of the uterus or ovaries. This being the case it is important that they receive early attention. An exalted activity of the uterus or ovaries may be relieved, or more easily at least than many results that follow in their train.

Excessive discharges occurring at, or about, the menopause, generally excite less alarm than at other times. It is a common expression. "It is the change of life, you will soon be all right." I have known physicians even to encourage their patients by such saying, and sometimes to their ultimate destruction. It is a general disposition to regard them at such time, as a natural consequence, and do nothing for the patient. In the mean time the foundation is often being laid of an incurable or malignant disease. It is certainly important to examine into the causes at this time,but much more so when they occur after the cessation of menstruation. Then great apprehension should he excited by their occurrence. For if not in women that are of intemperate habits, who sometimes suffer from vaginitis which may give rise to hemorrhage, it is caused, in a majority of cases, by malignant disease of the uterus. Dr. Goodell says, "when a woman tells you a few years after the cessation of her menses that they have returned on her, in nine cases out of ten, she has cancer of the womb." I am not prepared to say but that this is too large a percentage of those cases, but the occurrence of hemorrhage at such time should excite sufficient apprehension of that disease, to elicit a thorough and careful examination.

I will now report a few cases that have fallen under my observation together with the treatment that I found most efficient.

Miss W. aged 18 years, well developed, of sanguine lymphatic temperament, had first menstruated in her 15th year without difficulty. At 17, she suffered from menorrhagia. The discharge then lasted two weeks, and since has gradually grown worse.

She had when I saw her been "unwell," as she termed it, with but slight abatement for three weeks, she was prostrated. As she was opposed to being examined, I did not insist but prescribed iron, quinine,and nux vomica in pill form, three times daily, and the following mixture:

Gallic acid . . .	℥ss.
Sulphuric acid . .	ʒj.
Tinct opium . . .	ʒj.
Camphor water . .	℥iv.

M. and give dessertspoonful every three hours, and also advised astringent injections per vaginam. This treatment checked the hemorrhage and she improved for one week. At the expiration of that time her menstrual period came on, and as the discharge was moderate and menstrual in character, we hoped it would cease in a few days, and the improvement would continue. But we were doomed to disappointment,for instead of ceasing it increased and became hemorrhagic. I now placed her on fluid ext. ergot ʒiv, fld. ext. digitalis ʒij, fld. ext. ipiecæ ʒij. M. and gave 30 drops every two hours, continuing the tonic and astringent injections. Under this treatment the flow gradually ceased and she improved in strength and appearance until her next menstruation. A repetition of the symptoms of the last period occurred, but the treatment was ineffective. The hemorrhage became alarming, and I had to resort to the tampon. I now insisted on, and obtained the privilege of making the necessary examination. The mouth of the womb was slightly relaxed, yet virginal in form, the neck in a state of congestion, and protruding farther than usual into the vagina, and also presenting a round or marble shaped appearance. I dilated it and discovered a small tumor, no larger than a bean inclosed in the cavity of the neck of the womb. I introduced a pair of forceps and twisted it off after some trouble, as the pedicle was larger than usual in such cases. It was attached to the womb above the internal os. After this operation she soon regained her health, and remained well for nearly one year, when she had a return of her hemorrhagia. It being inconvenient for her to again consult me, she made no application to anyone for treatment, and six months intervened after the renewal of the tumor before I saw her again. She at once submitted to an examination, and upon the introduction of my finger I found another tumor in the vagina as large as a small hen's egg, with an unusually large pedicle attached to the posterior portion of the external os. I removed this with an ecraseur. On a course of tonics she soon recuperated again, she has since remained well.

Mrs. H. aged 34, married, and the mother of three children, youngest four years old. She had suffered with some "womb trouble" (as she she expressed it) ever since the birth of her last child, and during the last three years had had menorrhagia. Her hemorrhages lasted from two to three weeks and left her nearly exsanguinated. When I was called to her I found her almost in extremis, and I had to use the tampon. I put her upon stimulants and ergot which controlled the hemorrhage. After the tampon was removed and the flow had ceased, I made an examination and found the neck of the womb covered with vegetations, having all the appearance of being syphilitic. But as I could obtain no history of syphilis in the case, I was at some loss as to how I should proceed with the treatment. I could not, however, rid my mind of the impression of syphylis,(although every assurance from the family to the contrary was given) I placed her on one-twentieth of a grain of bichloride of mercury three times daily, and to control the hemorrhage [should it again occur) ergotine, ipecac, and cannabis Indica, in combination. I also applied the stick of nitrate of silver freely to the granulations, and afterward packed tan-

nin with iodoform, dry around the intra-vaginal portion of the womb. At the approach of the next period I stopped the local application. When the period occurred, she suffered with severe labor-like pains for two days, and finally discharged a small mass, consisting principally of hydatids. She had but little hemorrhage afterward, and commenced to improve. After three or four months she was apparently well confirming the truth of my impression of syphilis that I had entertained from the first.

Mrs. T. æt. 35, married ten years, and mother of one child, eight years of age.

Had been the subject of uterine disease for several years, and had been treated by many physicians, but had obtained but little relief. Menorrhagia had only been a prominent symptom for two years. At first the losses were moderate, and although she observed that the flow was more profuse than formerly, and continued longer, it was not a source of much anxiety, but of late the hemorrhage not only returned at the regular periods, but frequently between them, and when not flooding, had muco-purulent leucorrhea profusely.

I was called to her at one of her periods, and found her with a moderate hemorrhage, but it was the successor of a profuse one. She was quite weak, and complained of severe pain and a dragging sensation in her back and pelvic region. I gave iron, quinine and strychnia as a tonic, and ergot, ipecac and digitalis for menorrhagia, also directed an astringent carbolized solution to be injected into the vagina every three hours.

The next day I found but little alteration in her condition, discharge the same. I continued the treatment except the injections, and advised instead pulv. alum in a small sack dipped in tincture opium, and applied to the mouth of the womb, and kept *in situ* with cotton tampons. Twenty-four hours later the hemorrhage had ceased, and I made a thorough examinination.

The cervix was enlarged, congested, and excoriated, and bled on the slightest touch. The mouth of the womb was open and the lower portion of the neck filled with villous granulations. It looked like a piece of red velvet, and was of exceeding vascularity. I applied nitric acid to the granulations within the os, and to the intra-vaginal portion of the neck, a compound iodine mixture, composed of iodide pot., chlorate pot. aa ℥iss. carbolic acid gtt. x, glycerine, tinc. iodine aa ʒiss, water ℥i M., and a pledget of cotton dipped in glycerole of tannin to the neck of the womb. When the cotton was removed, which was always done next morning after its application, she used one teaspoonful of the comp. iodine mixt. in one pint of warm water every six hours as an injection per vaginam. With the use of tonics, a liberal regimen and the above local treatment twice a week (varied to suit indications), in three months she was discharged in good health.

The next and last case I shall report was a Mrs. O. who was 44 years of age, and mother of six children. The last was five years old. She had enjoyed good health all her life, and had had no difficulty at her menstrual periods until twelve months previous to the time I saw her. Her menses first became irregular in their appearance. She would miss a period or two and then they would be profuse and continue ten days. She had gradually grown worse in the two preceding months and at the time I was called to treat her, the discharges were exhausting and attended with much pain and discomfort. In my examination I discovered the mouth of the womb open, the lips slightly everted and excoriated. The womb was enlarged. I could without difficulty (by conjoined manipulation) introduce my finger into the body of the womb. I did so, and at the internal os I found a uterine fibroma of the sub-mucous variety as large as a pullet's egg, with which the contraction of the womb was forcing open the internal os and neck. I passed my finger over the tumor and found that it was not pediculated but was broadly attached to the posterior part of the body of the womb. After I had thus ascertained its position I introduced a hawk-billed bistoury, (wrapped with a cloth to mar its point) by the side of my finger to the upper part of the tumor, and

out through the capsule into the body. There was very little hemorrhage from the cut. I then pressed my finger through the opening into the tumor, with the intention of enucleating it, but finding it more firmly attached than I had anticipated, I did not persist in the underiaking, but concluded to rely on ergot to complete the work as the restraint was now so largely removed by the division of the capsule. She suffered much pain from the violent contractions of the womb which I had to alleviate by the hypodermic injections of morphine.

On the third day after the operation the tumor was detached and thrown into the vagina, from which I removed it. She also under antiseptic and restorative treatment, both medicinally and hygienically, was restored to health in a few months.

I do not desire to make the impression that I treat all my cases as successfully as those I have reported in this article,such would not be the fact. I have cases, perplexing, difficult of diagnosis, unyielding, incurable, and malignant, as every physician in general practice has. My object in this writing is to impress the great importance of making our selves well acquainted with the pathogenesis and pathology of this condition, which is but a symptom of disease, and also the great necessity of careful, thorough and studied investigation of all cases we are called upon to treat, for by this means only can success be attained.

3511 N. Market St.

THE SUBCUTANEOUS INJECTION OF ANTIPYRIN.—Wolff, of Breslau, (*Therap. Monotsheft*, June 1888), thus summarizes the uses of antipyrin subcutaneously: 1. In muscular rheumatism. 2. For the chest pains of phthisis. 3. For the neuralgias of the superficial nerves. 4. As an aid in diagnosis. 5. In attacks of asthma. 6. For painful conditions, when morphine is contraindicated, or to replace the latter, particularly in children and those who bear morphine badly.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, AUGUST 4, 1888.

THE GOVERNOR AND MAXWELL.

In view of what appeared in the editorial department of this journal, July 28, 1888, the writer feels prompted to let it be known that there is not a unanimity of opinion concerning what has been, and what should be the conduct of the Governor in the Maxwell case.

This case teaches how a few ingenious persons can turn the heads of a large proportion of almost any community by harping continuously on some sentimental theme. If Maxwell had been caught within a few days after the Preller murder, the individuals who would have lynched him if they could, are the very ones who to-day are signing petitions for mercy in his behalf. The great bulk of the names on these petitions are those of people whose opinions, political, religious and social are shaped by the last argument that reached their ears no matter how false or absurb, so it be ingeniously arranged.

There is, however, a respectable minority of signers of the petitions whose opinions must be respected.

But we must confess we have never heard an argument from a medical man or anyone else that was sufficient to change our mind for a minute about the justice and necessity of hanging this man.

It would seem futile to reveiw the evidence in this case after the course it has had in the courts, and, therefore, uuless there were some extenuating circumstance apart from the evidence, senseless to ask the Executive to interfere. Some of us though are

apparently incapable of taking this view of the situation, and are attempting to dictate a better formula of justice, than three courts of justice, including the highest tribunal of the land, can prescribe. Suppose that these wise and prominent physicians agree as the result of their consultations on a certain plan of treatment for a patient, does it not seem a travesty when some old woman proposes to substitute for such treatment a poultice prepared by nature in the cow lot. These petitions say: "You must not let him be hung because he did not have a fair trial." "The jury was not capable of appreciating certain facts that entered into the evidence." It they say"Do not hang the man because he is crazy and did not know what he was doing" or "He is the only son of a dying mother" or "He is a young man led astray by bad companions," we would have more patience with them.

We fail to see the force of the point that "the principal plea in his behalf should be based upon the fact that the majority of medical men will sustain the proposition that it is not possible for a man to be forcibly chloroformed to death by a man one half his size, or of superior force."

It is perfectly supposable from what is *known* of the man Maxwell both before and since the trial that he persuaded Preller first into the belief that he had a stricture of the urethra and secondly to submit to an operation involving the use of chloroform, all the time premeditating murder. The fact of the manner in which he attached himself to Preller and lived off him is evidence of the influence that he must have had over him.

The writer saw the post-mortem specimen that was presented in the trial. It is not necessary to explain to one with enough knowledge of the subject to appreciate the condition of things that there was no stricture or any other trouble demanding instrumental interference. The specimen showed this fact as satisfactorily to our mind as it would have done in the event of an examination a few hours after death. We do not attach much importance to this fact. The question is not whether Maxwell knew this but whether it is supposable that he could and did persuade Preller to take chloroform. The whole probability is that he did, disregarding the fact that the prisoner says himself he did. The next thought naturally suggested is whether he did not then proceed to overwhelm his patient with the anesthetic with murderous intent. The fact that he in an excited and hurried manner obtained more chloroform, less than he wanted, at a neighboring drug store, tends to corroborate this supportion. Explanatory of it on his part is only his own statement that he spilt some of the supply.

The man, hardly more than a boy, Maxwell is a plausibly self-sufficient, self composed person of very considerable intelligence, yet with a very apparent lack of principle, selfish and sensual, indisposed to follow any regular occupation but willing to beat his way about the world at other people's expense, and evidently of a queer mental turn; in fact possessed of all the traits of a polite criminal, the very kind of material from which murderers are made. A man undoubtedly who if at large would grow in villiainy and continue to contaminate society high and low wherever he touched it even in prison.

Our pity is none the less, but all the more, because we see in this miserable little man a monster criminal. There is a great difference between honest, heart-felt pity for a miserable being in this unfortunate man's extremity and the sickly sentiment that prompts courtesans to bestow gifts upon a notorious criminal, and many individuals to sign petitions and resort to other measures for his relief. In this case before signing such petitions, if prompted to do so by any sort of feeling, we should consider the matter well and not allow a mere sentiment, the fabric of which has been dexterously woven by the intelligent prisoner and his ingenious attorneys, to cause us to forget our duties of citizenship and inadvertently to seem to be classed in the social scale below where we belong.

It is not his blood for which we ask, but that society shall have the best protection

possible from such as he. While capital punisment is in vogue as the severest penalty of the law, there is no safety except in its administration to his kind.

There will only be the necessary protection in life-imprisonment, where it consists in proper solitary confinement for life beyond the possibility of a pardoning power, and when it becomes the highest penalty that the law inflicts. FRY.

TENDENCY OF MODERN OPHTHALMOLOGY.

Dr. F. C. Hotz, in his presidential address before the Section of Ophthalmology at Cincinnati, in May, called attention to the fact that the importance placed on local treatment of ocular affections had led many to believe that modern ophthalmology was so exclusive a specialty that it had no interest in or connection with general medicine. Continuing he says:

Nothing could be more erroneous than this idea. Every leaf of the ophthalmological literature bears witness that modern ophthalmology is striving incessantly to establish the closest connection with general medicine by investigating the relations which exist between the ocular diseases and the maladies of the whole human body.

In solving this great problem ophthalmology is endeavoring to answer these two questions:

1. What effect have constitutional and organic diseases upon the eye?

2. What influence have morbid disturbances in the eye upon other parts of the body?

Many are the valuable contributions made by ophthalmologists to our knowledge of the etiological dependence of ocular affections from organic or systemic diseases, especially since the ophthalmoscope has greatly widened the field of these investigations. In 1856 already Dr. M. Heyman, of Dresden, recognized and described the characteristic pathological changes in the retina associated with Bright's disease of the kidneys. Diabetes was found not only to disturb the lens, but also to cause iritis and choroiditis; and leukemia is now known to induce peculiar lesions in the retina. Numerous observations have been recorded of the influence of cerebral and spinal affections on the visual organs, and of the effect of tobacco, alcohol, quinine, lead and other poisons. Uterine disorders have been found a prolific source of ocular neuroses, and diphtheria a cause of paralytic affections; not to speak of innumerable new facts discovered in regard to the etiological connection of gout, rheumatism, syphilis and malaria with ocular diseases.

But special workers in this line he says, have not met with encouragement and cooperation from the general profession that should have been given. As an evidence that the latter has "for a long time, shown a strange indifference to ophthalmology," he cites the meagre accounts given, in medical text-books of diseases of the eye, and also the fact that medical faculties do not think the study of ophthalmology of sufficient importance to make attendance upon the eye clinics obligatory.

We agree with Dr. Hotz in believing that ophthalmology is neglected by the general practitioner, to a greater extent than are other branches that are considered specialties. Oculists are constantly meeting with cases of acute glaucoma, which general practitioners have treated for orbital neuralgia till the vision is irrevocably lost. It is the duty of every physician to learn to tell the tension of eyes, (and there is not one who cannot learn it) and he should make it an invariable rule to apply this simple means as an aid in diagnosis, whenever a doubtful eye case presents.

Dr. Dudley Reynolds, of Louisville, says there are two affections of the eye that should never be treated by any one except a specialist, viz. cataract and glaucoma. We have taken occasion before, to express our opinion that any physician has a right to treat any case that applies to him provided hebelieves that he is thoroughly competent to treat it. But no one has a right to treat the simplest disease of the eye on "general principles," not having learned anything of the nature or proper treatment of such disease.

Cold in the Reduction of High Temperature.

In times past when it was the custom to "feed a cold and starve a fever," a physician, bold enough to use the ice-pack, would have been mobbed. When by accident it was discovered that cold, both internally and externally, naturally reduced fever, it was thought that a panacea for most of the ills of mankind had been found in hydropathy. As usual quacks rushed boldly in to share the booty to be had from the great discovery; failures began to be recorded, and the regular profession began to lose confidence in the new agent. Within the last few years, however, there has been a growing disposition on the part of medical men to put to the test any and all remedies (the composition of which is known) for which great results are claimed, and it has been found that the ice-pack fulfills an indication in a certain class of cases which no other agent at our command will do.

It is well known that if the temperature of a patient remains as high as 110° for any length of time the patient will succumb, and that it is next to impossible to control such temperatures by the administration of drugs internally.

Dr. Wm. M. Ord read a paper before the Clinical Society of London on "Acute Rheumatism treated by Ice-Pack." The temperature reached 108.4°, and the pulse 160 beats to the minute. The ice-pack was applied and maintained four hours, at which time the temperature was 100° and the pulse 100. The restless unconsciousness with tremors had passed away. The patient made a good recovery.

Dr. Ord called attention to the fact that the use of antipyretics in hyperpyrexia was comparatively unsafe, as large and frequently repeated doses were necessary.

Dr. C. S. Arkle reported two cases at the same meeting. In one (a case of acute articular rheumatism) the temperature reached 110.4°. Ice cold bath for forty minutes reduced it to 97°, but four hours later it reached 107.2° while taking antifebrin. A twenty-five minutes bath reduced the temperature again, and it showed no further tendency to become excessive. The second case was similar to the first. She was treated with the ice-pack with a like good result; both patients recovered.

Toxic Effect of Chlorate of Potash.

Drugs that are used as throat-washes or gargles and especially those that are also used in the form of lozenges or tablets to be dissolved in the mouth, are supposed by the laity to be harmless. It is the duty of the physician to counteract these erroneous impressions, as far as lies within his power. Many drugs are used as household remedies that should be dispensed only in small quantities and by qualified physicians—chlorate of potash belongs to this list.

In the *Medical Record* of July 21, Dr. Geo. L. Peabody reports two cases of death resulting from overdoses of the above mentioned drug. One was a girl of 20, who took two tablespoonfuls supposing it to be Rochelle salts. When Dr. Peabody saw her, fourteen hours after the dose was taken, her temperature was 99° pulse 136, respiration 32, surface very cyanotic, face being nearly purple in hue. Her pulse was very feeble. She vomited freely a bile-stained fluid. Later her temperature rose to 104°. Urine passed was of a dark chocolate color, and it was found to contain many blood-cells, large masses of altered hemoglobin, and much albumen.

At noon on the following day Dr. Peabody was impressed with the extraordinary color of the skin, conjunctiva and lips. "The combined effects of intense anemia with a cyanotic hue apparently beneath the surface, together with a very distinct sepia-brown or chocolate tint where the epidermis was thin produced a most remarkable and unusual effect."

The patient grew steadily worse, and died thirty-seven and a half hours after taking the drug.

The post-mortem changes which were ob-

served half an hour after death, were interesting as showing the marked poisonous effect of the drug.

The blood in the large blood-vessels was all liquid and of a dark chocolate color; the clots in the heart were very soft and friable and of the same color as the blood elsewhere. The cut surfaces of the liver; kidneys, spleen and lungs presented the same chocolate color.

Microscopical examination showed fatty degeneration of the heart, and many of the straight tubes of the kidneys were found distended with broken down blood cells and hemoglobin.

The other case reported by Dr. Peabody, was a man aged 53, who had been subject to chronic sore throat for more than a year, and had been accustomed to chlorate of potash both as a gargle and as an internal remedy. He bought the medicine "by the pound." He was accustomed to carrying a box of lozenges made of the drug in his pocket, and from time to time allow one to dissolve in his mouth.

The post-mortem changes were similar to those of the other case, except in the latter case they were more marked. The heart contained much fat in its muscle cells. Dr. Peabody thought that death was the result of the combined causes; feebleness of heart, dyspnea and suppression of urine.

The most marked poisonous effect of the drug seemed to be upon the blood, changing the hemoglobin into methemoglobin which is incapable of transmitting and assimilating oxygen.

Chlorate of potash is not to be discarded from our armamentarium, as it is an excellent remedy when properly used. The lesson to be learned from the report of such cases as the above, is that indiscriminate prescribing of drugs, for indefinite periods of time is bad practice. Patients are apt to injure their general health by continued use of the remedy,and to leave poisonous quantities setting about the house.

Nephrorraphy in Belgium.

Dr. H. Duret recently read a paper on the subject of "The Treatment of Movable or Floating Kidney by Nephrorraphy," giving the results of two such operations performed by him.

He graphically depicted the misery—or rather, torture—which patients, the subject of such conditions, are compelled to endure, and hence the absolute necessity for some effort being made to relieve them.

Aside from the continuous dragging, heavy sensation in the abdomen, weakness and general inaptitude for the fulfilling of ordinary duties, he has noticed crises of pain, repeated vomiting, prostration, hysterical convulsions, etc., occurring at the menstrual periods and closely simulating disturbances of ovarian origin. This is easily explained when the close relationship between the renal and ovarian plexuses is remembered. Nevertheless the real difficulty frequently exists unrecognized, under the diagnosis of hepatic or renal colic, gastralgia, or lumbo-abdominal crural or ovarian neuralgia. A correct diagnosis can generally be made, however, from the clinical history and a careful physical examination. The examination should be conducted with the patient while standing, and also in the dorsal and genu-pectaral position. Attempts to seize the organ for the purpose of ascertaining its shape and other characteristics will probably prove successful in one, at least, of these positions. It is necessary to clearly establish the mobility of the kidney, because it is sometimes the seat of pain of a neuralgic character which might prove misleading.

Statistics relating to the two operations—nephrectomy and nephrorraphy—made for the relief of the condition under discussion, decidedly favor the latter. Twenty abdominal nephrectomies have given 12 recoveries and 8 deaths; of 6 lumbar nephrectomies, 6 recovered. Of 12 nephrorraphies, only one has died. But a greater safety in the operation brings with it less surety in the permanence of cure. Of the two patients (women)

operated on by Dr. Duret, the first recovered and had had no return of the trouble at the end of a year. The second, after an apparent recovery, returned four months later coming that the attacks of gastralgia, from which she had formerly suffered, had returned, though they were less severe. Examination disclosed the fact that the kidney was no longer tender to pressure; that while it had lost the free mobility possessed before the operation, it was not absolutely fixed, as in the case of the other patient. This partial failure was attributed, by the operator, to the thinness, the insufficiency of the fatty capsule of the affected kidney. It had participated in the general emaciation produced by the prolonged ill health of the patient. To obviate this result that will sometimes follow nephrorraphy, one must have the good fortune, as remarked by the commission appointed to examine into the work of Dr. Duret to meet only with renal capsules that are of abundant thickness and solidity and are well charged with fat.

The method employed was similar to that originated by Prof. Hahn in 1881. The incision is carried from a point two or three fingers breadths below the inferior border of the last false rib, down to the crest of the ilium. If more room is needed a portion of the twelfth rib may be resected.

When the kidney is brought into view, a crucial incision is made into its capsule, the resulting four angles are raised, when the health of the cortical structure may be approximately determined. Sutures are then passed through both the proper and the fatty capsule, fastening the organ to the inner edges of the wound, and also,if desired, to the periosteum of the eleventh rib. But none of these should pierce the skin.

Provision is then made for drainage,and an antiseptic dressing is applied. No complications interfering with convalescence occurred in the two cases reported.

When the operation is perfected in some points that are at present certainly defective, it will assuredly supplant in many cases, the major and more dangerous one of nephrectomy. BRANSFORD LEWIS.

IDIOPATHIC SUPPURATION OF THE SPINAL DURA MATER.

Dr. Robert McGuire reports a case in the *Lancet* in which a young man slept in damp sheets, and a few days afterward complained of pain in the lumbar region. Ten days after he was found to have paralysis of the lower extremities, which was followed in twenty-four hours by paralysis of the arms, accompanied by retention of urine and involuntary evacuation of the bowels. There had been no shooting pains, rigidity, twitchings, or hyperesthesia of the limbs, and no rigidity of the spine or retraction of the head.

The history of the case threw no light upon it,as there had been no previous disease or injury.

There was no loss of sensation over the chest and abdomen. Severe pain was complained of when pressure was made over any part of the vertebral column, but none when patient was perfectly at rest. The mind was perfectly clear, and there was no paralysis about the head and face. When patient was admitted to the hospital, about ten days after he was taken sick his temperature was 100.6°, but on the following morning it rose to 110°. An ice-bag was applied to the nape of the neck and ten grains of quinine given, after this the temperature did not go about 106°. During this time the patient perspired freely.

Respiratory movements became very slight and cyanosis very marked. Patient was conscious and rational, but gradually sank, and died on the day following his admission to the hospital.

On post-mortem the spinal canal was laid open, and pus was seen lying between the dura mater and the vertebral canal, extending from the sacral termination of the canal to the second cervical vertebra. The pus was limited almost entirely to the posterior part of the canal, and in the cervical and lumbar regions it had infiltrated the muscular planes at the sides of the spinal column. The spinal cord seemed entirely healthy. No disease of the bones, or pathological condition other than those above mentioned was found.

Dr. McGuire calls attention to the fact that heretofore the occurrence of idiopathic inflammation of the spinal dura mater has been very generally doubted. This case seems to prove conclusively that the condition may be found.

The interesting clinical features of the case is that there was inflammation in or about the spinal column, and yet the symptoms pointed rather to pressure on the spinal cord, than to inflammation of it. The patient evidently died from exhaustion, which was brought on mainly by lack of aeration of the blood. Had it been possible to recognize the true condition, would it not also have been possible and advisable to have established drainage in the lumbar and cervical regions, thus relieving the pressure on the spinal cord?

A Practical Point in Connection with Primary Vaccination.

In an article published in the *Lancet* July 7, Mr. James Niven raises an objection to primary vaccination as a means of preventing the spread of small-pox. He says a certain number of medical men in practice, have probably never seen a case of small-pox, and while the great majority of these would recognize a typical case at once,it is little wonder that they fail to recognize the atypical cases with which they meet, such as have been modified by a previous vaccination. Then too patients suffering from the mild form of the disease do not consult a physician, but move about among the people. Mr. Niven says: "It may thus be a question whether, given general efficient compulsory notification, we are safer with the partial protection we now enjoy than we should be if the population were entirely unvaccinated. This question could only arise however if compulsory notification were universal, so that one town should not have to suffer for the absence of safe-guards in another. The logical outcome of the position is either in universal compulsory notification, extending to medical men, householders, etc., or in an inforced second vaccination at the age of twelve, and even in a third should it prove necessary."

The objections offered by Mr. Niven are valid, but we do not think that any system of modification can afford as great protection against epidemics of small-pox, as can the present system of compulsory vaccination. Besides, the law has a right to sacrifice individual liberty for the public good to a certain extent, but there is a limit to its power. We do not think a law could be made in this country that would deprive individuals of the privilege of protecting their lives by having themselves vaccinated. No system of quarantine combined with compulsory notification has yet been devised that so certainly insures that an individual shall not die from small-pox as does a thorough vaccination.

Services of an Oculist Necessary in the U. S. Pension Department.

Dr. J. W. Wright, of Columbus, Ohio, in an article published in the *Columbus Med. Jour.*, drawns attention to the fact that Boards of Examining Surgeans, (established for the purpose of determining the validity or non-validity of applicants for pensions),are incomplete unless an oculist is a member of each board.

He cites cases that have come under his own observation which show the inefficiency of some of the boards now acting.

Dr. Wright is correct in his statements. It takes an expert to tell whether or not a pension claimant is telling a lie about his eyesight when the ontside of his eye is normal. The great majority of this class of patients possess but little of this world's goods, and the test to which many of them are subjected, is a hard one for human nature to withstand.

Some of the present Boards of Examiners partly overcome this difficulty by calling oculists to their assistance in cases that are obscure.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association will meet at St. Louis, Sept. 11, 12 and 13, 1888.

Dudley S. Reynolds, A. M., M. D., Louisville, president, John L. Gray, M. D., Chicago, Ill., secretary.

Office Chairman Committee of Arrangements, Lindell and Grand Avenues, St. Louis, Mo., July 19, 1888.

To the Medical Profession of the Mississippi Valley.—That there should be a thorough appreciation on the part of the profession—of the mutual interests of medical men in the States of the West and South can not be questioned. Engaged as they are in the management of diseases peculiar to their section, realizing the value of an exchange of ideas between workmen in the same calling and the same field, the doctors of this great valley should at once step to the front and join earnestly in an effort to organize and crystallize the scattered segments of the profession into a strong and harmonious whole.

Knowing as we do that the seat of empire of our country socially, commercially and politically has removed from the Eastern shore, is not the time ripe for accomplishing the same change in the medical profession? Shall not "Westward the star of empire" of our profession take its way?

Recognizing the truths of the foregoing propositions and in earnest thereof, we, the undersigned, cordially invite all members of the profession in the states west of the Alleghanies to meet in St. Louis, Tuesday, September 11, 12 and 13, and become members of the Mississippi Valley Medical Association.

We append hereto a copy of the constitution and by-laws of the society.

A good programme is being arranged with a full supply of able papers and interesting discussions.

This is the most desirable time to visit St. Louis, it being during the great exposition and carnival season. All the doctors should bring their wives and families, as there will be ample enjoyments for the latter while the meetings of the society are in progress.

Liberal arrangements will be secured from the various railroad and telegraph companies.

We trust that every member of the profession, eligible, will consider himself and family most cordially invited to St. Louis at the time above mentioned. Please address the Chairman of Committee of Arrangements for further information. Procure from your local ticket agents a receipt for full fare paid.

Committee of Arrangements, H. Tuholske, Y. H. Bond, Frank R. Fry, R. M. King, A. H. Meisenbach, H. H. Mudd, Josephus R. Lemen, H. C. Dalton, Spencer Graves, A. H. Ohmann-Dumesnil, Robert L. Thomson.

I. N. Love, Chairman.

Constitution and By-laws of the Mississippi Valley Medical Association

NAME.

Article I. This Association shall be known as the Mississippi Valley Medical Association.

Article II. The objects of this Association are to foster, advance and disseminate medical knowledge; to uphold the honor and maintain the dignity of the medical profession.

MEMBERSHIP.

Article III. Membership in this Association shall be limited to those members of the profession of medicine who acknowledge allegiance to the American Medical Association by signing its code of ethics. No individual who shall be under sentence of expulsion, suspension or disability from any recognized state, county, district or local medical society, shall be eligible to membership in this Association until said disability shall be removed. All applications for membership shall be referred to the committee on credentials. The annual dues shall be $3 in advance.

MEETINGS.

Article IV. The regular meeting of this Association shall be held annually. The place, with the time of meeting for each suc-

cessive year, shall be determined by vote of the Association.

OFFICERS.

Article V. The officers of this Association shall be a president, two vice-presidents, a permanent secretary, treasurer, an executive committee, consisting of the president, vice-presidents, permanent secretary, treasurer and chairman of the committee of arrangements; a committee on credentials, consisting of five members who may call to their assistance one member from each state represented at the meetings; a judicial council, consisting of seven members, three of whom shall serve one year and four for two years, alternately. A committee on nominations, which shall consist of one member from each state represented, shall be selected by the president on the second day of each annual meeting. It shall meet and nominate officers for the ensuing year, all of whom shall be elected on the last day of the annual meeting.

DUTIES OF OFFICERS.—PRESIDENT.

The president shall preside at the meetings of the Association, and perform such other duties as parliamentary usage and the vote of the society may require.

VICE PRESIDENT.

The senior vice-president, or in his absence a junior vice-president, shall assist the president in the performance of his duties, and, in the absence of the latter, or at his request shall officiate in his place.

PERMANENT SECRETARY.

It shall be the duty of the secretary to keep a list of the members of this Association with their addresses, to give notice of the meetings of the Association, to keep a record of its preceedings, to conduct its business correspondence, and perform such other duties as may be required.

ASSISTANT SECRETARY.

It shall be the duty of the assistant secretary to assist the secretary in the performance of his duties, and, in the absence of the latter, those duties shall devolve upon him.

TREASURER.

It shall be the duty of the treasurer to receive and disburse all moneys belonging to the Association. He shall pay out no money except on warrants signed by the presiding officer.

COMMITTEE OF ARRANGEMENTS.

The chairman of the committee of arrangements may choose as many assistants as he may deem best, and appoint an assistant secretary, besides making all arrangements for the annual meetings.

CHANGES IN THE CONSTITUTION.

Article VI. This constitution shall not be altered or amended except the proposed alteration or amendment be first read on two consecutive days of a regular annual session of the Association and receive the approval of a three-fourths vote of all the members present.

By-Laws.

ARTICLE I.

The annual session shall be called to order by the chairman of the committee of arrangements. The president on taking the chair shall call for the reading of the minutes of the previous meeting, and on the morning of each succeeding day of the annual sessions the following order of business shall be observed after the reading of the minutes:

1. Announcements of the committee of arrangements.
2. Report of the secretary.
3. Communications from other societies.
4. Reports of committees. They shall be called in the following order; committee on credentials; executive committee; judicial council; committee on nominations during the morning session of last day only.

ARTICLE II.

1. The provisions of article I of these by-laws shall apply to the first thirty minutes of each morning session.
2. No essay or report shall be permitted to occupy more than twenty minutes without consent of the committee of arrangements.
3. Discussion of papers or reports presented shall be limited to ten minutes for each speaker, and no member shall speak a second time except with the unanimous consent of the Association.

4. No essay, report or other communication presented to this Association shall be published in any but the regular medical journals without the consent of the executive committee.

5. All questions of debate shall be decided in accordance with Cushing's Manual of parliamentary laws.

ARTICLE III.

1. All questions of ethics and differences between members shall be referred without debate to the judicial council whose report shall be final.

2. All questions of eligibility for membership shall be determined by the committee on credentials.

3. No person shall be allowed to participate in the deliberations of this Association who has not registered as a member and paid all dues.

ARTICLE IV.

These by-laws may be amended by a two-thirds vote of all the members present, provided the proposed amendment shall be made in writing and read aloud to the Association on two consecutive days at any annual meeting.

SELECTIONS.

EXOPHTHALMIC GOITRE.

BY AUGUSTUS A. ESHNER, A. M., M. D.

Under the names of *Morbus Basedowii*, Graves' disease, *goitre exophthalmique*, cardiothyroid exophthalmos, *struma exophthalmica*, *tachycardia strumosa*, *exophthalmos anæmicus* has been described a complexus of symptoms of which the nature, association and source have not yet been clearly made out. The multiplicity of names indicates the uncertainty as to pathology. Early writers considered the disorder a manifestation of a strumous or cachectic condition. Some ascribed the phenomena to mere mechanical influences, assuming primary changes in the heart and vascular system, as sequelæ of which are developed the remaining features. Recent observers have sought explanation of the symptoms in derangement of the nervous system, while some deny the disorder an individual existence, charging the combination of symptoms to accident.

As described by Basedow, the disorder was considered a strumous hypertrophy of the connective tissue of the orbit and thyroid gland, following upon disease of the heart and large vessels, a secondary manifestation of a disordered circulation and blood dyscrasia.

Graves described a condition of violent, long-continued palpitations in females, with enlargement of the thyroid gland. When the palpitations were violent the gland became distended, the swelling subsiding with the paroxysm. Graves concluded that if palpitations dependent on functional disease of the heart were capable of exciting this altered state of the thyroid gland a similar condition might be conceived to arise in case of organic disease of the heart. He observed a singular appearance of the eyes, which seemed enlarged, so that the lids were incapable of closing. When the eyes were open, a band of white sclerotic was visible above and below the cornea. Graves further noticed a remarkable disproportion between the beats of the radial and carotid arteries. The pulsations of the former were comparatively feeble, while those of the latter were violent.

The three classical symptoms of exophthalmic goitre, in the commonly accepted order of their development, are palpitation, with increased activity of the heart, enlargement of the thyroid gland and protrusion of the eyeballs. There is no constant order of appearance, nor is it essential that all three symptoms be present to constitute a genuine picture of the disease.

The heart beats violently, as frequently as 120 to 160 times in the minute, seldom under 100, while it has been observed to beat 200 times in a minute. The action is irregular, at times intermittent. The palpitation may be evident to the patient, yet it may exist without giving rise to subjective sensation. The cardiac impulse is strong. The carotid

arteries show visible pulsation. Pulsation of the abdominal aorta has been observed in a number of cases, with most distinctness in the spare and emaciated. In the early stages of the disease, the heart sounds are normal, unless, perhaps, for anemic murmurs heard at the base or over the body of the organ. With long continuance of the augmented cardiac action, dilatation and hypertrophy may result, giving rise to murmurs of valves which have become incompetent. Autopsies of protracted cases have shown the cardiac apparatus in various stages of disorganization.

The enlargement of the thyroid gland seldom reaches a high degree, becoming stationary at a period when ordinary bronchocele accelerates in growth. The enlargement is, in many cases, more marked on the right than on the left. It may be so slight, indeed, as, of itself, to escape notice. The gland is filled with blood, soft and pulsatile, and often transmits a thrill to the finger and a whirring or roaring to the ear. Murmurs are frequently heard, synchronous with the sound of the heart.

Da Costa states that, in exophthalmic goitre, it is the rule to hear murmurs in the thyroid gland, while in ordinary bronchocele it is exceptional. Hypertrophy of the glandular elements and of the connective tissue may result. At an advanced stage, the gland becomes firm and solid.

At six autopsies the thymus gland has been found persistent.

Of the three cardinal symptoms, the exophthalmos is probably the least constantly present. It is usually bilateral and symmetrical, but either eye may protrude more than the other, though the right is oftener than the left the more prominent.

The protrusion of the eyes may be so great that the lids fail to cover the globes, while, on the other hand, it may be so slight as to be scarcely perceptible. The failure of the natural protection of the eye may be followed by the most disastrous consequences to the organ. In a number of cases, ulceration and destruction of the cornea have resulted. The corneal complications arise more frequently in men than in women, which is the more striking in view of the fact that exophthalmic goitre is the more common among females. Graefe has described a want of consentaneous movement of the eyelids with depression and elevation of the glance. This incoordination is independent of the mere exophthalmos, for it has been observed when the latter was but slight, and was wanting when the protrusion was marked. The manifestation is not evident at all stages of the malady, but more particularly at the progressive periods. Stellwag has called attention to an abnormal widening of the palpebral fissure, in consequence of the contraction of muscular fibres in the upper eyelid, with infrequency and incompleteness of the act of involuntary winking. It is this which gives to patients having exophthalmic goitre a peculiar, unnatural and staring appearance. Diplopia, amblyopia, nystagmus, ophthalmoplegia externa and interna and strabismus have been observed. The pupils are, as a rule, unaltered.

Graefe noticed in the fundus that the retinal veins were enlarged and more tortuous than normal. Otto Becker observed spontaneous pulsation of the retinal arteries, which he ascribed to vasomotor paralysis and increased cardiac action.

Charcot calls attention to the occurrence of muscular tremors, an almost constant manifestation of Basedow's disease, upon which he lays much stress as a symptom. "This trembling is distinct from all other forms known in neuro-pathology. The oscillations occur eight or nine in a second; nor do the fingers individually tremble. The tremor is general, involving all of the larger muscles of the trunk and extremities. The muscles of the head and those of the fingers and toes are almost never implicated. There are observed in these parts only general movements communicated to them from other parts."

Patients with exophthalmic goitre frequently complain of abnormal sensations, such as flushing and heat, with or without elevation of temperature. Profuse perspira-

tion is common. Mental changes are often striking. There occur changes in temperament, irritability and excitability, hastiness of speech and manner, vertigo and feelings of faintness, neuralgias and impaired memory. Hysteria, chorea, epilepsy and insanity have also been noticed in connection with exophthalmic goitre. Not a few cases of acute mania have been reported, and "among the insane Graves' disease is more common than among the sane." Sleeplessness is, in instances, a prominent symptom, causative or consequent. The *tache cerebrale* has been seen—an indication of a lowered condition of the vasomotor nerves of the peripheral capillaries.

The digestive system suffers markedly. Anemia and chlorosis often exist. Emaciation is apt to be a prominent feature, early or late. In one case unilateral emaciation has been reported. Vomiting is a common phenomenon. It may occur in so severe a degree as to imperil life. Diarrhea is quite as constant, at times profuse and exhausting. The appetite is impaired or capricious. In numerous instances there has been boulimia at some stage. Excessive thirst, sometimes distressing and insatiable, may be an additional complication.

Among the disorders of the respiratory apparatus have been noticed a sense of oppression of the chest, dyspnea, paroxysms of suffocation, pseudo-angina pectoris and cough

Quite a number of cases are recorded, in which alterations in the skin have been observed. The complexion has, in cases, been variously described as icterode, dirty yellow, dusky, sallow, brown, unwashed looking and leaden. Purpuric spots were noticed in a case at the clinic of the Jefferson Medical College Hospital.

There have also been associated with exophthalmic goitre a number of cutaneous affections, sclerema, urticaria, acne rosacea, vitiligo, leucoderma, and the brownish pigmentation of Addison's disease. A most common symptom is the excessive perspiration, which occurs even in the coldest season.

Diabetes has been noticed in a number of cases.

Attention has particularly been called by J. W. Begbie to the presence of albumin in the urine in cases of exophthalmic goitre. The same condition has been noted by other observers.

A sign to which Charcot attached much importance is the diminution of the bodily electrical resistance. Dr. Romain Vigoroux has discovered that the needle of the galvanometer suffers a greater deflection when interposed in the current passing through one having exophthalmic goitre than in the case of a healthy individual. Charcot deems this expedient a most important means of diagnosis in doubtful cases.

In females, disorders of menstruation, amenorrhea, dysmenorrhea and menorrhagia bear a striking relation to the occurrence of exophthalmic goitre.

As to the prognosis and duration of the disease opinions differ. There are those who consider it a chronic and essentially irremediable disorder. On the other hand, there are others who show the best results from treatment, the reports of whose cases are highly encouraging. A clinical lecturer recently stated that of perhaps some twenty cases, which he had seen, none had proved fatal. He estimated the duration of the disease as about two years, suggesting that the disease of itself tended to recovery, requiring only rest and tonic treatment. Statements of a similar tenor are made by others. Certain it is that comparatively few deaths have been reported in consequence of exophthalmic goitre. The disorder is usually slow in its progress and protracted in duration, though it may develop rapidly and, perhaps, come to a speedy termination. Those who recover are extremely liable to recurrence of the disorder. Marked cases are apt to leave behind some traces of their existence. The hypertrophy or dilatation of the heart may persist, the enlarged thyroid gland may fail to reduce to its original, normal size, or the eyes may retain a fixed, staring expression.

There are no statistics as to the mortality.

Graefe estimated that 12 per cent. of cases are fatal; in 20 per cent. complete recovery takes place, in 30 per cent. some improvement; and in 38 per cent. statistics are wanting. The prognosis is more unfavorable in males than in females, and is the less favorable with advancing years.

Exophthalmic goitre is largely more common among females than among males. Of 227 cases collected by the writer, 42 were in males and 185 in females. Of males, the oldest was 66, the youngest 16; of females, the oldest was 62, the youngest 9. The average age in both sexes was between 30 and 31. A case is cited of a girl of two and one-half years, after scarlatina.

The etiology of the disorder must be intimately related to the pathology.

That any condition inducing a lowered state of the vital functions should be, to say the least, a predisposing cause, is self-evident. It is thus that wasting discharges, depressed mental and physical conditions, exhaustion, fright, anxiety and grief often precede the development of exophthalmic goitre. As an affection of the nervous system, heredity might be assumed as predisposing to the occurrence of the disease, and observation fully confirms such an inference.

Hack has reported a case in which cauterization of the hypertrophied erectile tissue and enlarged turbinated bone of the nasal cavity resulted in the cure of exophthalmic goitre. Peripheral disturbances must thus yet be included as a reflex cause of the disorder.

The pathological changes and the precise seat of the lesions have not yet been definitely determined. The disorder was at first considered strumous, scrofulous, cachectic, then cardiac, anemic, and, finally, nervous in origin. In 1857, Dr. F. Prael, Sr., reported a fatal case of exophthalmos with struma and heart disease, in which the cornea had been destroyed prior to death. At the autopsy, there were found abnormally soft spots at the base of the brain. The optic thalami and corpora mammillaria and the cerebellum were also soft to the touch. There was no sign of hypertrophy of the fatty, connective tissue of the orbit. The goitre and exophthalmos were less than during life. There were dilatation and hypertrophy of the left side of the heart, with atheromatous changes at the mitral orifice and in the aorta. Prael thought that the increased action of the heart, from disease of its valves and of the aorta, gave rise to hyperemia of the thyroid gland and of the orbital connective tissue. He explained the absence of changes in the orbital tissues by the emaciation which existed. In the same volume containing Prael's article is another by Graefe on the same subject. Graefe regarded the changes in the heart as inconstant and secondary, a natural result of violence of action, associated with defective nutrition. He suggested the cause of the disease as in the nervous system, designating the sympathetic as probably at fault, the disturbance involving also the vasomotor system. Thos. Laycock concluded that any sufficient cause, acting morbidly on the cilio-spinal portion of the spinal cord, would give rise to "the protrusion of the eyes termed anemic," together with the other manifestations of exophthalmic goitre. J. O. Fletcher, from a study of nine cases, thought the symptoms arose from an excess of cholesterin in the system. It is the function of the liver to excrete cholesterin by its conversion into stercorin. As cholesterin is in large measure a product of nervous activity, there being in exophthalmic goitre a hyperneurosis induced by sleeplessness, anxiety or mental disturbances of kindred character, with an excessive production of cholesterin, and a failure of complete elimination by the liver, the symptoms result. J. Warburton Begbie ascribed the conditions in exophthalmic goitre to an impoverished state of the blood acting injuriously upon the peripheral terminations of the vasomotor nerves.

At the present day, opinions are divided as to whether the disease is due to a disorder of the sympathetic nervous system, more especially of the cervical portion, or to disturbance of the central ganglia situated in the medulla oblongata. In support of the hy-

pothesis of a lesion of the cervical sympathetic are adduced the experiments of Claude Bernard and others with section of that division of the sympathetic and stimulation of the cut extremities, and the appearances found at certain post-mortem examinations. It has been demonstrated that section of the cervical sympathetic is followed by dilatation of the blood vessels of the head and neck, retraction of the eyeballs, drooping of the lids and contraction of the pupil. Stimulation of the central extremity causes contraction of the vessels, protrusion of the eyeballs, retraction of the lids and dilatation of the pupil. Stimulation of the peripheral cut extremity, through the cardiac accelerator nerves, causes increased action of the heart. It is assumed that certain fibres, the vasomotor, passing through the cervical sympathetic, are in a state of constant paralysis, while certain others, the oculo-pupillary and cardiac accelerator, are in a condition of constant irritation. At a number of autopsies changes have been found in the cervical sympathetic, such as increased amounts of connective tissue and sclerosis; but these appearances have been by no means constant, being wanting, probably, as often as they are present. In this connection, a writer, already quoted, says: "The lesions described might readily have been produced during the processes of preparation for section cutting. In a large number of sympathetics that I have examined, the amounts of pigmentation and connective tissue varied greatly, and the ganglion cells did not accurately fill the capsule, and appeared somewhat opaque in cases in which there was no reason to suspect sympathetic disease." Besides, exophthalmic goitre is mostly a symmetrical disease. It would be difficult to conceive that precisely the same structural alterations took place in the ganglia and fibers of any division of the sympathetic system on both sides of the body. It must also, at once, appear unphilosophical that of nerve fibres pursuing the same path, side by side, a portion should be in a state of permanent irritation, while another portion is in a state of permanent paralysis, both at the same time and as the result of a common cause. Neither is dilatation of the pupil by any means a constant phenomenon. On the contrary, in the larger number of cases the pupil maintained its normal condition, while in some it has been found contracted.

It has been urged that the symptoms arise in consequence of pressure of the enlarged thyroid upon the pneumogastric nerve and its recurrent laryngeal branch, and from interference with the cranial circulation; but the enlargement of the gland is, as a rule, not sufficiently marked to give rise to pressure phenomena. Besides, the other manifestations may appear in the total absence of any increase in the size of the thyroid.

Hack ascribed the symptoms in his case to peripheral irritation of sympathetic terminal filaments reflexly stimulating vaso dilator nerves. None of these explanations, however, takes cognizance of the constant occurrence and frequent association of the nervous, digestive, respiratory and circulatory symptoms.

That the vasomotor system of nerves, or some division of it, is involved, is now conceded. The vasomotor nerve center has been located on the floor of the fourth ventricle, in the gray matter between the calamus scriptorius and the corpora quadrigemina. The action of the heart may be accelerated by stimulation of the cardiac accelerator nerves, or by inhibition of the pneumogastric. The latter condition would also be attended with irregularity of the cardiac action. According to the experiments of Claude Bernard, diabetes may be produced by puncture of the floor of the fourth ventricle, at a spot corresponding to the situation of the vasomotor center. It would require no stretch of the imagination to conceive a lesion involving the vasomotor, the cardio inhibitory and, in some cases, the diabetic center, and giving rise to the symptoms of exophthalmic goitre.

Filehne, in a series of experiments, found that incision into the gray substance of the corpora restiformia was most frequently followed by impaired action of the vagus with acceleration of the heart. Next in frequency

occurred exophthalmos, usually more pronounced on the one side than on the other. Although swelling of the thyroid gland was but seldom produced, there was well-marked vasomotor paralysis of the ears, of the anterior part of the neck and of the thyroid. Widening of the palpebral fissure and infrequency and incompleteness of the involuntary act of winking were also occasionally noticed, while the pupils were in no case affected. In one case, Filehne succeeded in producing in the same animal simultaneously the three cardinal symptoms of exophthalmic goitre. He formulated the following conclusions:—

1. Basedow's disease may be produced by paralysis of certain nerve regions which are controlled by the medulla oblongata. The points traversed in common by the nerve paths concerned are the restiform bodies.

2. Under such circumstances the exophthalmos and the goitre depend upon dilatation of the blood vessels.

3. The increased rapidity of the heart's action is brought about by a diminution or abolition of tone in the vagus.

4. That Basedow's disease in human beings depends on the same physiological relations is highly probable, but must first be established by proofs afforded by pathological anatomy. In this investigation attention should be directed not only to the medulla oblongata, but also to the condition of the trunk of the cardiac portion of the vagus. "And, finally, he takes care to point out that even if post-mortem examinations should give negative results, this would not be, necessarily, fatal to his theory, as the occurrence of functional affections of the central nervous system (*i. e.*, those in which it is, as yet, impossible to find an organic lesion) is admitted."

It is noteworthy that the phenomena are often more marked on the right side of the body than on the left. It has been thought that this might be due to the fact that it is the right vagus which is chiefly concerned in cardiac inhibition. Arloing and Tripier found the heart, in horses, more affected by galvanization of the right vagus than of the left. Dissections showed that the left vagus sends one slender filament to the cardiac nerves, the right vagus a much larger number. Masoin had previously arrived at similar results. Meyer found that the left vagus of the German tortoise had no inhibitory action on the heart, while the right had a powerful one. It may be that an analogous arrangement exists in human beings. That the cardiac nerves should be chiefly supplied by the right vagus is explained by the fact that, in the embryo, the heart at first symmetrically situated, early becomes bent on itself and projects toward the right. In the same way, the stomach, at first placed vertically, subsequently turns over on its right side, the right pneumogastric supplying its posterior, the left its anterior surface. In confirmation of this view, it has been shown that in some instances in which the cardiac symptoms were absent, the other manifestations preponderated on the left side.

It would thus seem that the symptoms of exophthalmic goitre are best explicable on the theory of a lesion of the medulla oblongata, involving the cardio inhibitory center, the vasomotor center, the respiratory center, perhaps, also, the diabetic center and other vital points concentrated in this neighborhood. Depression of the cardio-inhibitory center through the vagus would give rise to rapidity, irritability and irregularity of the heart's action, increased by the lowered vascular tension. The disturbance of the pneumogastric nucleus, or of a hypothetical vomit center, might explain the vomiting and the manifestations of digestive disorder. Impaired action of the vasomotor center would be attended with dilatation of the vessels, generally or locally, as varying areas or sub-centers are implicated. This, in turn, would be followed by increased vascularity of the thyroid gland, perhaps with exudation and hypertrophy; by similar conditions in the retro-bulbar tissues, producing exophthalmos. It would also give rise to subjective sensations of heat, to perspiration, to affections of the skin and to polyuria. Increased activity of the heart and di-

minished vascular tone would, together, give rise to abnormal pulsation of the vessels. The murmurs variously heard are anemic in origin. Involvement of the respiratory center would explain the oppression of chest and the pseudo-angina. Diabetes would be produced by involvement of the diabetic centre. The motor phenomena, the paralyses, the tremor and the remaining nervous manifestations might be be due to disturbances of adjacent ganglia and nuclei of gray matter.

That no palpable lesions are found postmortem may arise from the fact that the disturbance is functional in its nature, due to molecular alterations in the intimate structure of the cells of the nerve centers, not appreciable to our present means of investigation, just such changes as may be conceived to exist in epilepsy, hysteria, and in tetanus.

The materia medica has been ransacked in an endeavor to find a remedy for exophthalmic goitre, and in vain. Iron, digitalis, quinine, belladonna, ergot, strychnine, arsenic, iodine, veratrum viride, aconite, electricity and nitro-glycerine have all been used, lauded on the one hand, rejected on the other. Graefe found iron useful only at certain stages in the milder grades of the disease, and contra-indicated in the severer forms. Digitalis has been said to be entirely useless, disturbing the digestion, and affording not even temporary relief. There is no specific remedy. Rest is an important factor in the treatment. The general health should be improved, the diet carefully regulated,symptoms treated as they arise, force conserved and complications prevented. If the heart is weak, digitalis will be useful. If hypertrophy exist and the heart is overacting, aconite will be required. The treatment throughout should be sustaining. With convalescence, arsenic, quinine, and stychnine may be used. Should eye complications arise, they are to be treated as they would under other circumstances. The best results have been reported from the use of electricity. Chvostek has reported a series of 23 cases treated exclusively by the galvanic current, in all of which manifest improvement, and, in most, complete recovery took place. Recently Charcot has strongly recommended the electrical current asthe sole means of treatment, and supports the recommendation by the recital of cases which have entirely recovered by carrying out the method he proposes. He directs the use first of a faradic current, the anode applied to the nape of the neck, the cathode firmly over the carotid below the angle of the jaw, then lightly over the eyes; and next the goitre, the sternohyoid and sternothyroid muscles must be faradized. Following this, the galvanic current is used, the anode placed at the inner third of the third intercostal space on the left, the cathode at the nape of the neck. The sitting should last ten or fifteen minutes and be repeated on alternate days.

Dr. Louis Rehn reports three cases of exophthalmic goitre cured by partial or complete extirpation of the thyroid gland. As the manifestations of the disease do not depend for their existence upon the enlargement of the thyroid gland, these cases might be included among those which spontaneously recover; in fact, they seem to have recovered in spite of the treatment, rather than as a consequence of it.

In conclusion, the writer cannot refrain from calling attention to the similarity of many of the symptoms of exophthalmic goitre to the phenomena which pregnancy may present; the disturbance of cardiac innervation, the palpitation, the hypertrophy and dilatation, the spanemia, the dyspnea, the oppression, the precordial pain, the nausea and vomiting, the flushing and sensations of heat, the tegumentary changes, the perverted appetite, the enlargement of the thyroid gland, the albuminuria, the diabetes, the mania, the insanity.—*Polyclinic*..

TUMOR OF THE SPINAL CORD—REMOVAL—RECOVERY.

If it be the pleasure and privelege of knowledge and skill to put health in the place of disease, comfort in the place of agony, it will be plain to any one who cares to

read that Dr. Gowers and Mr. Victor Horsley have enjoyed high privilege and reaped full pleasure. If it be a peculiar enjoyment to open a new way for others to like pleasures and privileges, they will have that special character to their enjoyment. It has been very generally known for some time that by an accuracy of knowledge that is only possible to a few, and a surgical talent that can embody prudence without losing inventiveness, a perfectly new surgical success has been won in England, of which we are a little timid as yet in measuring the effects. We are slow in getting used to the idea that under proper conditions of precaution many tumors of the brain may be removed *en masse* with the gain of life, and not the losing of it; and now, further, we must grant that the spinal cord, that most inaccessible and inviolable of organs, may be laid bare of part of its bony covering—man may become for the time and in part an invertebrate—in order that it may be set right, not by the gentlest of manipulations, but by the surgeon's knife. At the concluding meeting of the Royal Medical and Chirurgical Sociey, which was held on Tuesday, June 12, the most important paper of this session, from Dr. Gowers and Mr. Victor Horsley, was presented, relating in such detail as the novelty and complexity of the facts demanded a unique case of the successful removal of a tumor of the spinal dura mater from within the bony canal, and the recovery of the patient.

At a previous meeting of the Society the patient, a private gentleman, an officer in the Merchant's Service, had willingly attended to show to all who cared to see them the proofs of what had been done to him, and to express his deep gratitude for the change it had made in his life.

Since 1884 he had had a nearly constant pain under his shoulder blade, with long fits of agony that maddened him, as some of his friends said in all seriousness, and with no hyperbole or methaphor: He might well have been glad of some last straw to break his back, and bring him to an end; but science could break his back to more profit.

After due consideration and explanation, Mr. Victor Horsley laid bare the spinal column from the third to the seventh dorsal vertebra, and cut off the fourth, fifth and sixth spinal processes with strong bone-forceps. He made his way through the laminæ on both sides, and the still more obstinate ligamenta subflava, slit the dura mater up the middle line, and laid bare the spinal cord.

When the opening was made the injury had been suspected, but the tissues were healthy. That the attempt should be abandoned was counselled from some quarters, but Mr. Horsley preferred to complete his task, removed the posterior part of another superior vertebra, and there found this tumor of the dura mater compressing the cord. It could be easily shelled out of its deep bed, the wound was carefully closed and drained, and healed by first intention. Slowly the great power of nervous recovery showed itself, and the pain and paralysis disappeared.

This is not easy surgery, and the many details, hints and conclusions that find a place in Mr. Horsley's paper will need careful consideration when we receive it at length in print. It was more than a summer gathering of the Royal Medical and Chirurgical Society could do to discuss it. It must be left to take its permanent place among the forward steps of the progress of the healing art.—*Brit. Med. Jour.*

VITAL CAPACITY OF THE LUNGS AND THE VACUUM PNEUMATIC SPIROMETER.

In a paper published July 7 (*Amer. Med. Ass'n Jour.*) Dr. Joseph Jones, of New Orleans, describes a pneumatic spirometer that is very simple in construction, and which he has found a very effective instrument in measuring the amount of air a patient can take into his lungs in one inspiration. He gives the result of Dr. Hutchinson's investigations, published in 1846, which were as follows:

1. Height. There is an increase of 8 cubic inches in vital capacity for every inch in height between 5 feet and 6 feet, thus the

vital capacity of a healthy person at 5 feet to 5 feet 1 inch being 174 cubic inches. At 5 feet 4 inches it would be 174 cubic feet +32 =206 cubic inches. At 5 feet 8 inches 238 cubic inches, etc.

2. Weight. Excess in body weight is associated with diminished capacity in the proportion of about 1 cubic inch per pound, excess.

3. Age. From 30 to 70 years the vital capacity decreases nearly 1½ cubic in. per year.

4. Disease. The spirometer furnishes a very accurate standard of health, or of the extent of disease as regards the chest, the vital capacity in lung disease diminishing from 10 to 70 per cent.

Whenever there is as much as sixteen per cent deficiency in the lung capacity, there is reason to suspect local pulmonary trouble.

Dr. Graham Balfour, who followed out Dr. Hutchinson's investigations, found that the loss to the British army by consumption was much greater among the men having a vital capacity "under the average" than amongst men of average capacity or above it; and although the proportion of deaths did not differ materially amongst those three classes, yet the invaliding was four times as high among men under the average than among the others.

Dr. Jones has used the pneumatic spirometer for many years, and has found it a great aid in the diagnosis of chest troubles. His general results are summed up as follows:

1. The accuracy of the conclusions of Dr. Hutchinson as to the relation of height, weight, age and disease to the vital capacity of the lungs have been confirmed by over 1000 experiments. The general results of the investigations of Dr. Balfour have also been confirmed.

2. In cases of incipient tuberculosis, or in the early stages of this disease the cubic vital capacity of the lungs irrespective of the height or weight, or age of the adult patient (male) do not exceed on an average 130 cubic inches.

3. In the advanced stages of phthisis pulmonalis, the vital capacity of the lungs in adult males ranges from 60 to 120 cubic inches.

4. No correct estimate can be made of the cubic capacity of the female lung, unless the corsets and all bandages be removed from the thorax and abdomen.

Similar decrease in vital capacity of the lungs is noticed in the female suffering with phthisis pulmonalis.

5. The vital capacity of the lungs is diminished in chronic bronchitis and in pleuritis. In the latter disease, the diminution of the vital capacity in the lungs will correspond with the amount of liquid effused into one or both pleural cavities.

6. The vital capacity of the lungs is diminished in emphysema, in asthma during the paroxysm when the disease is spasmodic, in permanent asthmatic conditions of the lungs, and to a limited extent in chronic bronchitis.

7. Certain cases of general paralysis and locomotor ataxia, when attended with diminution of the vital capacity of the lungs, without structural alteration, or the deposit of tubercles in these organs, such diminution being due to the loss of muscular power in the thoracic walls.

8. If the liquid contained in the large glass receiver be medicated with carbolic acid, iodine, petroleum or other volatile substances, beneficial effects may result from the use of the vacuum pneumatic spirometer.

9. The daily inflation of the lungs, by the use of the vacuum pneumatic sprirometer has proved beneficial in some cases by enlarging the capacity of the air-cells. We have the means of observing accurately the changes in the capacity of each individual under treatment.

10. The use of the vacuum pueumatic spirometer gives precision to diagnosis and accuracy to prognosis.

INJECTION OF COCAINE INTO THE URETHRA FOLLOWED BY DEATH.

Dr. Henry J. Simes adds (*Med. News*) another case to the list of deaths reported fol-

lowing the use of cocaine. The patient, æt. 21, suffered from a urethral stricture and a small fistula leading from the urethra and opening through the perineum.

The man was placed upon the operating-table, one drachm of a twenty per cent solution of muriate of cocaine was introduced into his urethra, by means of a long-nozzled urethral syringe which passed about four inches into the canal. The instrument had scarcely been taken out of the urethra when the patient made a foolish remark, the muscles of his mouth began to twitch, the eyes staring, pupils dilated, frothing at the mouth, face much congested, respiration interfered with, and ending in a violent epileptiform convulsion, lasting for some seconds. These convulsions were continued with increasing violence several times a minute, the whole muscular system taking part in the spasms, requiring considerable force to keep him from falling off the table. The action of the heart was not much interfered with, and appeared only to be secondarily affected. It was the respiratory action that seemed first to fail, and then heart's action became irregular and slow. The breathing was gradually more and more interfered with; the face—in fact, the entire surface of the body—became deeply cyanosed, the pulse slow, and at the end of twenty minutes from the first convulsion had ceased to beat. The man was dead.

Post mortem showed no lesion of importance, but marked congestion of the brain, lungs and liver.

Treatment of Typhoid Fever as Adopted in Fifty Cases, with only one Death.—C. C. Greer, Roanoke, Va., says: After the diagnosis has been made beyond a doubt, I order a change of linen and bed-clothes. This change of linen is to be repeated every other day. The bed is to be removed from the wall into the middle of the room. If the disease occurs during the summer, the doors and windows are to be kept open; and if in the winter, such ventilation is to be secured as the weather will admit. If the bowels do not move more than twice in twenty-four hours, let them alone. If they move oftener, give a few drops of laudanum with a little bismuth. If the bowels do not move, give injections of warm water. If there is delirium and restlessness at night, give a teaspoonful (or less, if a child) of bromidia every hour until sleep is procured or until four doses are taken. Give the patient as much sweet milk as you can get him to drink. If there is much prostration, give Liquid Beef Peptonoids—such as is prepared by Messrs. Reed & Carnrick, of New York.

℞ Spts. lavender comp., ʒj
Water - - - ℥viij.

M. S. Teaspoonful three times a day.

With this treatment the temperature will rarely reach 104° F.—*Va. Med. Monthly.*

Laparotomy in Tubercular Peritonitis.—Of fifty-four cases of laparotomy in tubercular peritonitis collected by Trzebicky (*Wiener medizin Wochenchr*), four died from the immediate consequences of the operation, while in a fifth death occurred soon after the operation from acute miliary tuberculosis, though the fluid had not reaccumulated. One case died in four months of general tuberculosis without the peritonitis disappearing. Cures resulted in forty cases, though here and there advance of pulmonary tuberculosis was reported. The majority of cases were in females, which may find its explanation in the fact that most were operated upon under an error in the diagnosis of ovarian cyst. The statistics are yet too meagre, the correctness of the diagnosis not entirely above doubt, and the period of observation after operation not long enough; but in view of the results there is no longer any justification for expectant treatment. Even though in some cases recovery was not permanent, the fluid did not reaccumulate, and the patients were relieved of their distress. Spontaneous recovery from tubercular peritonitis is exceptional, and operative interference is indicated the more, as it would seem that in many cases, tuberculosis of the peritoneum is a primary affection, and the source of general infection.

As all other therapeutical measures are fu-

tile in such cases, and laparotomy, under antiseptic principles may be considered free from danger, the operation is certainly indicated. It consists in a free incision, and thorough evacuatson of the fluid.—*Med. News.*

UNIQUE FOREIGN BODY IN THE BLADDER.—A correspondent of the *Brit. Med. Jour.* gives a unique case of foreign body in the bladder. A young man had some slight irritation on passing his water, and following advice, given him many years previous, he heated a paraffin candle, moulded it in the form of a bougie and passed it into his urethra. On attempting to remove the paraffin little more came away than was actually between his fingers. Six weeks later the patient came under the care of Dr. G. Buckston Browne, who removed by piece-meal the foreign substance, which had become somewhat brittle by becoming incorporated with a good deal of phosphatic matter. The patient made a good recovery. The substance was broken in peices in the bladder by means of a lithotrite.

CORRESPONDENCE.

VOMITING IN PREGNANCY A SIGN OF THE SEX OF THE CHILD.

WINFIELD, ARK.

ED. REVIEW.—It would be a source of pleasure to most prospective fathers and mothers to be able to tell, or even to know with approximate certainty what sex their child will be. At one time the number of fetal heart-sounds to the minute was thought to be an index, but this sign has been proven to be rather unreliable.

Some years ago, my attention was called to morning sickness as a sign of the sex of the fetus, and as substantiating this I will cite the following:

A woman, carrying her first child, was so ill from "morning sickness" during the first four months of pregnancy, as to be entirely unfit for household duty. The child when born was found to be a female. The second pregnancy was similar to the first, a female child being born.

During her third pregnancy my patient was not sick in the least, and would not believe that she had conceived till she felt the movements of the child. This one proved to be a boy. During the next two pregnancies no sickness occurred, and male children were born. During her sixth pregnancy she was greatly annoyed by morning sickness, and a girl was born. I foretold the sex of the seventh, a boy, by the absence of vomiting, and the eighth, a girl, by the presence of vomiting.

In searching the literature at my command, I find Cazeaux and Tarnier in the last edition of their great work on obstetrics, say it is a sign of some importance, and Priestley in "Reynold's System of Medicine" refers to a physician, who claimed to be able to foretell the sex of the child by the absence or preseuce of vomiting during pregnancy.

I would be glad to hear from other readers of the REVIEW upon this subject.

CHEVES BEVILL.

ST. LOUIS CO., JULY 28, 1888.

EDITOR REVIEW.—I am not a polititian,nor is the REVIEW the proper channel through which ordinary political communications should come; but the medical profession of St. Louis, and of the state of Missouri, owe a debt of gratitude, and now is the time for them—in part—to cancel it.

When the Hon. David R. Francis—Mayor of St. Louis—appointed a medical man to the office of Health Commissionor, he did it contrary to precedent and in the face of fierce opposition, and now that he is before the people as a candidate for Governor of this great commonwealth, let us rally to his support, as physicians and as one man without regard to politics. Let every physician make a personal sacrifice—if need be—to attend the primary meetings, yet to be held, and cast not only his vote, but his influence for Francis.

GRATUS.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 6. ST. LOUIS, AUGUST 11, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

ULCERATION OF THE RECTUM.

BY J.R. LEMEN, M. D.

Allingham "says ulceration extending above the internal sphincter muscle and frequently situated entirely above it is not a very uncommon disease." The writer has no doubt that every surgeon who pays special attention to rectal troubles will testify that this is true. Still in looking up the subject, the works on general surgery contain but little on the subject, mentioning it incidentally as one of the causes of stricture of the lower bowel. Rokitansky mentions a form of ulceration which is caused by minute abscesses breaking into the intestines and extending. Niemeyer, in speaking of ulceration, says it is a mild catarrhal dysentery and may be caused by foreign bodies or retained feces, and so dismisses the subject. That this disease is one that has not received the attention that it deserves the writer believes, and he thinks that it is quite probable that many supposed cases of dysentery, diarrhea, dyspepsia and distressing symptoms that males and females are afflicted with, would be explained if the rectum were examined, by finding an ulcer, the presence of which was not suspected by the patient. That this disease may be materially benefited in all, and cured in many cases, there is no doubt, if they be attended to; but if not suspected and consequently neglected, the results are very distressing indeed, and the patient may die of hemorrhage peritonitis or exhaustion.

The causes of ulceration above the anus are syphilis, tuberculosis, foreign bodies, injuries, constipation, etc.

Syphilis, according to Allingham, is the cause of about half of the cases of ulceration of the rectum; but this proportion is considered too great by other authors. The destruction of the tissues usually begins in the tertiary stage or as one of the sequelæ of syphilis, and is probably the result of the sloughing of gummata which have been deposited in the rectal walls. Fournier considers that the ulceration is caused in the above manner, and Lancereaux says that gummata have been found in the large intestines although he is inclined to think that ulcerations are caused by chancroid rather than syphilitic sores. The English surgeons consider that the cause of ulceration about the rectum, is generally constitutional syphilis and not local. French surgeons consider the local origin quite frequent and Dr. Andrews, of Chicago, says that the chancroid about the rectum was frequently seen in the prison hospital of St. Lazare, Paris.

In a hospital experience of over ten years the writer has only seen two cases of ulceration due unquestionably to chancroid. In these cases the sore extended by ulceration into the rectum destroying the sphincter muscles, the patient being in a horrible condition. Ulceration of the rectum does not commonly begin at the anus and extend to the bowel above the sphincter but is usually located above the muscle and is confined to that portion of the bowel to a great degree, the tendency being to spread upwards rather than towards the anus.

We occasionally have ulceration of the bowel above the sphincter in the secondary stage of syphilis, as we do of mucous membranes in other locations. One such case has come under my personal observation, the patient suffering with the secondary erup-

tion complained of symptoms which led to an examination of the rectum: the mucous membrane appeared very red and ulcerated in several places.

In tuberculous ulceration, we have the small round nodule that breaks down forming an ulcer similar to tuberculous ulceration in other situations. When the conditions are such as to cause us to suspect tubercular deposits the contents of the nodules should be examined for bacilli, which if found is confirmatory of the diagnosis.

Simple ulcerations of the rectum result from a variety of causes, and are classified as simple, as opposed to the ulcerations above described, which are supposed to be due to a specific poison or germ. The writer believes that one of the most common causes of this variety, is long continued constipation of the bowels where the marked feces becomes impacted in the rectum to such an extent as to cause sloughing of the mucous membrane by the pressure exerted on it. Another cause of ulceration is foreign bodies which pass through the alimentary canal and lodge in the rectum, several cases being reported where fish bones were found at the point of ulceration.

In chronic diseases where the vitality of the tissues generally is lowered, as for example in Bright's disease and diabetes, ulcerations quite frequently supervene.

The symptoms of ulceration of the rectum are such as to mislead one unless the bowel be examined for the disease. We have pain in the abdomen; the patient complaining of distention and distress after eating. There is quite likely to be disturbance of the bowels, in the form of diarrhea. This diarrhea is peculiarly significant, as it is usually present in the morning, the patient probably having two or three movements upon first assuming the upright posture. After remaining up a short time the disturbance subsides and does not recur till the following morning. I have under charge a patient, aged 70, who has had this morning diarrhea for 14 years due to ulceration. The attendant told her that it was indigestion in the lower bowel and that nothing could be accomplished by treatment. The rectum had never been examined when I saw her. When this one symptom is present the physician in charge should never allow himself to be dissuaded from making an examination.

In the treatment of ulceration the cause should be ascertained and removed if possible. If it be constitutional, the treatment should be largely directed to constitutional remedies, with rest of the patient in the recumbent posture; if syphilis is the cause, iodide of potassium or sodium, and if tuberculous it would be proper to scrape out the nodules and use the injection of solution of biphosphate of lime, with which Dr. Kolischer reports the successful treatment of localized tuberculous deposits. When constipation is the cause this should be overcome by laxatives and the injection of glycerine into the rectum will be of service. Occasionally touch the ulcer with nitrate of silver solution, and insist upon upon rest of the patient, for, as Kelsey says, "one hour's walking and standing around the sick room will undo more than the other twenty-three can gain."

A CONTRIBUTION TO THE STUDY OF BONE REPAIR.

BY DR. JOHN S. MILLER..

Read before the Philadelphia County Medical Society.

The recent observations of Macewen (*An. of Surgery*, vol. vi. p. 289 et seq., 389 et seq.) have done much to stimulate the study of bone repair, and have not thrown a little light upon the function of the medullary cells in osteogenesis.

The resort to mechanical irritation of the medullary tissues as a means of accelerating bone repair, is an old procedure. Nancrede (Internat. Encycl. of Surg., by Ashhurst, vol. v. p. 8.) claims a priority in this for America. As far back as 1793, Eve (Remarkable Cases of Surgery, p. 35. Philadelphia, 1857.) relates that the lay surgeons of the frontier were wont to make multiple perforations of

the external table of the skull where necrosis had followed the Indian mutilation of scalping. And twenty years ago Agnew resorted to the same procedure in a case of injury to the head. A fatal termination of the case, however, by encephalic complication, rendered the experiment incomplete. Reports of success by this procedure have been recently multiplied to an extent which will excuse us from repeating them in detail.

That furthermore, medullary proliferation is not only an element in osteogenesis, but is of itself sufficient to that end without periosteal cooperation, is evidenced by the case of Macewen, (Loc. cit., p. 301.) in which a considerable restoration of the humerus was secured "by bone-transplantation," after a suppurative inflammation had destroyed both the shaft and its periosteum. The date of this observation is 1878.The patient was a boy, two years of age. A suppurative periostitis of the right humerus of nine weeks duration had resulted in total necrosis of the entire diaphysis, and this latter had been removed, leaving a tube of granulation material lining the periosteum. This tube had been kept patent by suitable dressing, until the whole space had become filled with granulation tissue, and had finally become a mass of cicatricial tissue. No bone had grown from this periosteum, except in a small part next the proximal epiphyses, where at the outset the periosteum had been found covered with plaques of adherent osseous tissue. In the remainder there had been no osseous deposit, the result being a flail-like arm, which the patient found so useless that the parents desired its removal.

Macewen determined, however, upon another procedure. An incision was made into the upper,third of the arm, exposing the head of the bone, to which was found attached a spike-like process of cartilage. This was removed, leaving as remains of the diaphysis a portion of bone one and three-fourths inches in length. From this point a sulcus about two inches in length was made in a downward direction between the muscles. The former presence of bone was nowhere indicated, and there was no vestige of periosteum, and the sole guide as to the correct position into which the transplant was placed, was an anatomical one. Two wedges of bone were then removed from the tibia of a patient aged 6 years, with anterior curves. The face of the osseous wedges consisted of the anterior portion of the tibia, along with its periosteum, the wedges gradually tapering toward the posterior portion of the tibiæ.

After removal they were cut into minute fragments with the chisel,quite irrespective of the periosteum. The bulk of the fragments had no periosteum adhering to them, they having been taken from the interior of the bone.

They were then deposited in the muscular sulcus of the boy's arm, and the tissues drawn over them, and carefully adjusted. The wound healed without pus production. Two months after, a portion of bone an inch in length, and three quarters of an inch in thickness was found firmly attached to the upper fragment of the humerus.

Two other wedges of bone, larger in size, were similarly dealt with, and inserted two months subsequently to the first graft, and a third couple were placed in position five months after the first. These filled up the gap in the arm to the extent of four and one-quarter inches. The arm then measured six inches in length.

Soon the utility of the arm was greatly restored. Seven years afterward he was seen and examined. The shaft of the humerus was found to have increased in length by one and three-quarter inches, being now seven and three-quarters; and it had increased in circumference to a marked extent, and assumed a somewhat irregular shape. The length of the sound arm had, however, considerably outstripped the length of the transplanted humerus. He could use the arm for many purposes, taking his food, adjusting his clothes, and many games.

Whether the introduction of proliferating medullary cells into ordinary connective tissue granulations may convert the whole into osseous tissue, or that a few osteoblasts will,

so to speak, leaven the whole mass, is a question involving grave doubt, but the affirmative would seem to receive some support from the case which Nancrede (Transactions of the Philadelphia Academy of Surgery, 1888,) relates in 1883. An extensive laceration had caused denudation and necrosis of the ulna in two-thirds of its extent. The process of repair had been delayed, he drilled numerous holes through the sequestrum into the medullary canal, and, to quote his own words, "in a few days granulations sprang up from the ulna and fused with the granulations of the soft parts, and, in course of time, the fragment was separated."

That the procedure in this case had the effect of stimulating osteogenesis from within, we can readily believe; but concerning the fusion with granulation tissue without, a more accurate observation than is recorded by Nancrede is desired. Although by analogy we might conceive it possible, inasmuch as repair within the bone is by ossification of an embryonic tissue derived from the connective tissue around the blood-vessels of the medullary spaces. A similar case is reported by Macewen, (Loc. cit. p. 293.) in which granulations appeared upon a surface of bone completely denuded of its periosteum, and gradually spread until they became united with the granulation tissue at the periphery of the wound. Macewen, however infers from this observation that "The periosteum covering a bone, may be completely destroyed or permanently removed, yet the denuded bone may not only retain it vitality, but may throw out cells which will cover it and form a new periosteum."

These cases would seem to confirm Macewen's dictum that the periosteum has no part whatever in the regeneration of bone. But the first case I shall present to your notice this evening demands a different hypothesis for its explanation.

The patient, D. M., aged 14 years, suffered from an osteomyelitis of the right tibia, resulting in total necrosis of its diaphysis. A complete involucrum had formed around the sequestrum and afforded an unsteady support to the body weight. It was covered with the thickened periosteum. A number of fragments had been removed from time to time, and the parents had refused to entertain for him the proposal of amputation. The case, however, when it came into my hands, had become from septic infection so desperate that I was compelled to do something radical at once.

Exposing the shaft, or rather the involucrum, through its whole length, I made with trephine and saw a fenestrum large enough to permit the removal of the remaining sequestra, and cleared out the whole canal. Both epiphyses were found carious upon their exposed surfaces, and were scraped to the limit of safety. In a few days a superficial necrosis took place upon the inner surface of the tube.

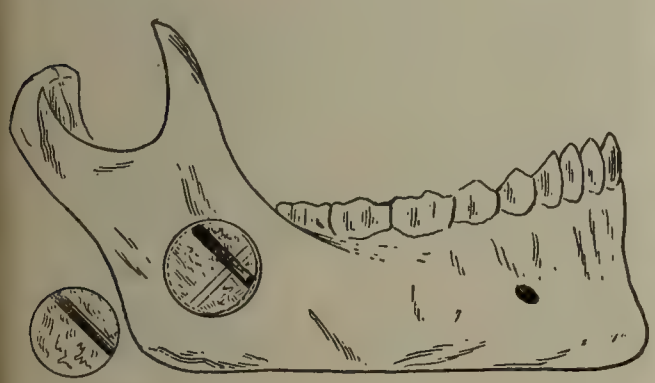
Demarcation was, nowever, promptly effected by the free use of aluminum acetate (℞—Pot. et alum. sulph., 1 part; plumb. subacet., 5 parts; aquæ bull., 100 parts. M. Filtra) that sheet-anchor in all sloughing wounds,and a fine layer of fine granulations became the field for any osteogenesis which we might hope to witness. During the long process of repair with the carious epiphysis as a never-failing source of bacterial supply, it was no trifling task to keep this extensive opening dry and sterilized. Furthermore, neither the patient, the household, nor the neighborhood could endure frequent dressings without great nervous prostration.

The requirements of the case were successfully met by a mixture of iodoform and starch, in proportions which varied with the changing conditions. The cavity of the wound was filled with this dry powder, and to the whole was applied a closed dressing of gutta percha tissue. The purpose of the starch was to absorb the excess of moisture incident to a closed dressing as well as to dilute the iodoform. As soon as the powder became saturated, it was removed by a stream of sterilized water, and the wound was filled and closed as before. The periods of dressing were gradually increased from three to ten days. I mention these details, because with-

out them, or similar ones, we can wait in vain for the desired repair. In process of time the hollow of the involucrum became completely filled with granulation tissue, which continued to extend until it fused with the granulations from the soft parts, and, finally, the whole became covered with a new epithelium, which had gradually spread from the edges of the wound. The tissues became now denser, and offered more and more support to the body weight until, as you see, he has acquired a very useful limb, and can walk without discomfort.

We must, therefore, infer that a metamorphosis into bone has taken place, and as the original diaphysis was gone with its medullary structure, we can find no osteogenic agent in the result other than the periosteum.

We must draw a similar conclusion from the recent case reported by Ceci:



The patient, a young man, developed an acute osteomyelitis of the left scapula five days after circumcision for inflamed phimosis. One month later, Ceci (Centralblatt f. Chirurgie, Dec. 17, 1887), extirpated the bone making the usual L-flap. The periosteum was left intact as far as possible, and the arm was preserved. The patient recovered rapidly, and there was a subsequent regeneration of the bone.

The only possible explanation of this result is by the hypothesis of the periosteal agency or co-operation.

The second case which I present is in confirmation of Macewen's proposition that

"A portion of bone which has its continuity severed on all sides, and has had all its periosteum removed, is capable of living and growing."

This is in contradiction to our inference in the case of the tibia, and can be reconciled only by the assumption that the discovered laws of osteogenesis are of a lower order, subject to some general law of which we are as yet ignorant. But to the case.

Mrs. L., aged forty-seven years, had suffered with neuralgia of the maxillaris inferior, for the relief of which all medical means had been exhausted in vain,and which, therefore, left to my option only the dernier ressort of neurectomy. The mode of operating was the usual one. The ramus was trephined near the angle of the jaw, the canal was exposed, and about two inches of the nerve trunk were drawn out and exsected. The button was, however, returned after having been sterilized in a 1 to 1000 solution of corrosive sublimate, but it was not returned to its old position. With a view of imposing a barrier to the reproduction of the nerve, it was so rotated around its vertical axis that the groove upon its lower surface stood at right angles to the axis of the canal. Not only did the wound close by first intention, but the button grew solidly in its position. Now, the curious thing in the case is, that before trephining I had carefully removed the periosteum, so that the latter can claim no part in the subsequent bone repair. After seven months there has been no return of the disease.

Dr. Rafael Weiss, of Havana, has found (*Lancet*) by measurements that the vulva in the negro woman is located nearer the coccyx than it is in the white women. This renders the parturient canal nearer straight in the negro, and as a consequence the period of of perineal distention in labor is shorter and easier than amongst white women.

Dr. W. Gill Wylie, of New York, gives one grain of inspissated ox-gall and one drop of oil of gaultheria for sick headache, the dose to be repeated every hour till the patient is relieved or until six doses are taken. Warm water given till the stomach rejects it, is an old but efficient remedy.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, AUGUST 11, 1888.

EIGHTY-TWO CASES OF OVARIOTOMY WITHOUT A DEATH.

Mr. George Granville Bantock gives (*Brit. Med. Jour.*, June 30) some notes on three year's ovariotomy work. He first reports a case on which he operated a few months previous to the beginning of the three years. This case "was altogether a desperate one and gave but little hope of a successful result." Adhesions were very extensive, hemorrhage profuse, the operation lasting one hour and a half. The patient died on the sixth day.

During the three years beginning the middle of April, '85, and ending at a corresponding date in '88, Mr. Bantock operated eighty-two times, and recovery took place in every case.

We are glad that the first case was reported with the others, as there is a growing elief that by mastering the principles of ovariotomy and acquiring a moderate degree of knowledge of the technique of the operation, any case may be operated upon with little risks to life.

In his report Mr. Bantock says:

Of the eighty-two cases adhesions existed in fifty-four. In 34 cases the second ovary was more or less diseased, and was accordingly removed. It is sometimes very difficult to decide whether the ovary is sufficiently diseased to justify its removal. In the large majority of the cases there was no difficulty whatever, and a very recent case induces me to believe that I shall find less difficulty in the future by requiring less distinct evidence than hitherto. I removed an ovarian tumor of 9½ lbs. eleven years ago. The other (left) ovary appeared to be quite healthy, and this view may be said to have been confirmed by the fact that within two years the patient gave birth to twins (one of each sex). But there is pretty conclusive evidence that it did not long remain healthy, for there is a history of gradual increase in the size of the abdomen for several years, and I have recently removed this second ovary, forming a tumor of 18 lbs. In this instance I was asked why I had not removed the second ovary at the first operation.

In all there were nine cases of dermoid tumors, and in one, both ovaries were diseased, the one containing skin and hair, and the other containing teeth. This is the second instance of double dermoid disease I have seen. The other was a private case. In only four of these cases were there adhesions; the remaining 5 were free, though in one the pedicle was twisted. The absence of adhesions in this instance was to be explained by the fact that the circulation through the pedicle had not been sufficiently interfered with to set up degenerative changes in the tumors.

In 8 cases the pedicle was twisted, and 3 of these belonged to the dermoid variety. In all but one there were more or less extensive adhesions, and in these seven the peritoneum was washed out and drained.

There were 5 cases of ruptured cyst, in all of which the whole peritoneal cavity was thoroughly washed out and a drainage-tube was used.

In 3 cases the disease was malignant, and in 2 of these the malignancy was recognized at the time of the operation. In the first case the patient died in about fourteen months with extensively disseminated cancer. In the second the patient made a rapid and uninterrupted recovery, leaving the hospital on the twentieth day. In a few weeks more a small tnmor formed in the region of the pedicle, painful and tender, without any rise of temperature or increase of pulse, and accompanied with rapid emaciation, and she

d ed on July 6. In the third case there was great edema of the lower extremities, gastric irritation with frequent vomiting, and considerable distention of the abdomen by free fluid. At the operation twenty-five pints of free fluid were removed together with a sarcoma of the left ovary weighing 6 lbs., and another of the right ovary weighing about ¾ lb., and the pelvic and lumbar glands were already infected. The peritoneum was well washed out and drained, and she recovered without a bad symptom. The disease, however, made rapid progress, though there was no more ascites; the gastric irritation, relieved by operation, returned in a few weeks along with the edema of the lower extremities, and she died in seven weeks.

All these 82 operations were done without the use of any so-called antiseptic substance. Warm water—not specially prepared—was freely employed in washing out the peritoneal cavity whenever the contents of the cyst had escaped into it, either by spontaneous rupture before operation, or when, through the breaking down of extensive adhesions, there was any effusion of blood and serum amongst the intestines, rendering the "toilet of the peritoneum" very difficult by any other method. In all these cases the drainage-tube was also employed. In not one single instance was any opium or alcohol administered.

Suspension of the Uterus for Prolapsus.

Under annotations in the *Lancet*, July 14, a description is given of a method practiced by Dr. Malanco, of Mexico, which is called "suspension of the uterus." The operation is designed to hold the womb in its proper position in cases of prolapsus. The operation consists in passing the ends of a silver wire (of sufficient length) through the vagina, one end being brought out through the abdominal wall, "just above the horizontal ramus of the pubes" on the right side, the other end of the wire being brought out at a corresponding point on the left side, thus forming a loop, the ends of which are secured on the outside by pieces of lead. Before the loop is introduced it is passed around a bit of metal in a piece of gum-elastic catheter, which acts like the quill in a suture, and is retained in the vagina.

The operation may consist of passing a wire on one side only, securing one end in the vagina and the other on the outside as indicated. Iodoformed ether is injected into both ends of the canal, the external wounds are closed by applying cotton wool and collodion impregnated with corrosive sublimate. The vagina is kept antiseptically clean.

The object of the wire is to form a dense fistulous track, joining the vagina with the anterior abdominal wall. In one case the wire was accidentally broken at the end of two weeks, and it was found that the artificial ligaments were strong enough to hold the uterus in position.

Within the last twelve months the unilateral and the bilateral operation have each been performed four times, and in all the cases the results were more or less satisfactory.

Silver sutures were found to be better than silk or catgut. The thermo-cautery was proposed, but abandoned on account of the danger to the peritoneum.

Speaking only from a knowledge of the anatomy of the parts involved, and that may be involved in this operation, the procedure seems applicable to a limited number of cases. The track of the needle that introduces the silver loop, must pass through a part of the peritoneal cavity that is frequently occupied by the intestinal canal, the presence or absence of which in many cases it is impossible to tell. If the needle be passed through the gut death of the patient will be the almost inevitable result. To say the least, such an operation should not be attempted by anyone other than an expert gynecologist.

What is Puerperal Fever?

It is time that the expression puerperal fever should be shelved. As M. Guerin re

marked at a late meeting of the Academy o Medicine, it no longer expresses all the troubles following confinement among those phy sicians who know how to diagnosticate such maladies correctly; and, indeed, it has very little sense in modern obstetrical science—no more than pulmonary fever has as expressing the various inflammations of the thoracic organs. If we are to continue to designate septicemia, metroperitonitis, lymphangeitis, uterine phlebitis, perimetric phlegmons and general peritonitis, as well as purulent and putrid infection, as puerperal fever, we shall not have advanced much in the direction of precision. M. Guerin, after Professor Cornil, defines three states; First, a peritoneal form, giving rise to peritonitis of a general infectious variety with pus; secondly, a pyemic form, arising from phlebitis or any other cause; and, finally, a form called puerperal septicemia, caused mostly by retention of all or part of the placenta, which is often curable by antiseptic injections, while the first two forms are generally incurable. In the purulent infection the temperature mounts rapidly and the pulse is rapid, while in putrid infection the fever is slow, something like hectic fever. Distaste for food is also noticed, with abnormal heat and a rapid and compressible pulse, and there is no shivering nor sweating stage.—*Paris Cor. N. Y. Med. Jour.*

The Treatment of Keratitis in Children.

The classification and treatment of keratitis in children is of interest to the general practitioner, as cases of this kind frequently come under his care, and it is not always practicable to send them to an oculist.

There are few lesions that occur in the structures of the body which bear so direct a relation to a condition of malnutrition as do ulcers of the cornea. This is due to the fact that in its normal state no blood vessel exists in its substance. Children whose vitality has been lowered either by disease, a lack of nourishing food, or by unhygienic surroundings, are especially liable to this condition.

As in other morbid conditions of the body, the prime factor is to remove the cause, if possible. If the general condition of the patient be neglected the best of local treatment will effect a tardy cure, and a relapse can with much certainty be counted upon.

The *Therapeutic Gaz.* of July 16 gives Trousseau's classification and treatment of keratitis in children as follows:

1. Phlyctenular keratitis.
2. Superficial keratitis.
3. Ulcerative keratitis.
4. Abscess of the cornea.
5. Parenchymatous keratitis.
6. Opacities of the cornea.

The first variety is really the initiatory stage of one form of ulcerative keratitis, and is rarely seen before the phlyctenule, or vesicle, has ruptured, leaving the ulcerative spot. Unless measures be adopted to arrest the process, this little ulcer may perforate the cornea, empty the aqueous humor, allow the iris to prolapse, and thus destroy the useful vision of the eye.

Trousseau says to combat this form of keratitis a piece as small as a grain of wheat of the following ointment should be introduced once daily with a small camel's-hair brush into the eye:

Vaseline, gr. lxxv;
Yellow oxide of mercury, gr. iv.

Three times daily compresses should be applied, moistened with a solution of boric acid, sixteen grains to the ounce. A bandage should not be employed, as it tends to augment the blepharospasm. If this latter symptom is, however, very intense, the external angle of the eyelids may be divided by means of a pair of scissors or a galvanic cautery, and this device, according to the author, is applicable in all the varieties of keratitis where this phenomenon is marked. For pain an ointment containing three parts of extract of belladonna to ten of mercurial ointment may be rubbed around the orbit morning and evening. Combined with local treatment, a general antistrumous treatment should be ininaugurated, especially by means of cod-liver oil. If there is a tendency to ulceration or

to the formation of an abscess, the ointment above mentioned should be replaced by a wash of seven eighths of a grain of nitrate of pilocarpine to one hundred and sixty drops of water.

Ointment of the yellow oxide of mercury is one of the best remedies that we have for this condition, but I have succeeded with insufflations of calomel in cases in which the ointment had failed outright. My experience has been that two grains of the yellow oxide to the ounce of vaseline is sufficiently strong. Two grains to the drachm is the strength generally used, but I have found half that strength produces decided irritation of the conjunctiva in some cases.

If great photophobia is present, forcible exposure of the eye to a moderately bright light is of great service. A simple canthotomy or dividing the external canthus is of little value. In severe cases a cantholysis or division of the outer canthus and of the outer cantha-ligament, and stitching the edges of the cut conjunctiva to the corresponding edges of the divided skin, proves to be a most efficient remedy.

In all of these cases I have found that bandages did harm instead of good, except when there was danger of perforation of the cornea, or when perforation had been followed by prolapse of the iris. In some cases, simply putting the eye to rest, by instillations of atropine, is sufficient to cause a superficial ulcer to heal.

In a few instances in which the superficial layers of the cornea were sloughing, I have stopped the necrotic process by spraying the eye with a solution of bichloride one to five thousand. In serpentine ulcers and ulcers which do not involve too much surface but are accompanied by hypopion, the actual cautery is the remedy par excellence.

Abscess of the cornea that is not the result of ulceration is a rare affection.

Parenchymatous or interstitial keratitis is almost if not quite pathognomonic of inherited syphilis. All local treatment is futile, unless accompanied by constitutional treatment. It is generally necessary to continue the use of mercury for six months or more. but in these cases perseverance is rewarded.

An opacity cannot be called a form of keratitis. It may exist without any inflammation whatever. When it accompanies inflammations it is a symptom only.

Management of Delivery Prior to the Seventh Month of Gestation.

Dr. Wm. H. Parish read a paper before the Philadelphia County Medical Society in June, in which he mentioned a number of well known reasons why the statistics, gathered from death certificates, fall far short of the actual number of deaths, the primary cause of which is abortion. Treatment of these cases, he said, should be based not alone upon the actual risk of a fatal result to the mother, but the fact that improperly managed deliveries of non-viable offspring entailed upon the women a number of serious conditions, should have full consideration. Subinvolution of the uterus, septic endometritis and endosalpingitis, in fact any of the various abnormal conditions that may follow regular labor may also follow abortion. He called special attention to the fact that a physician's duty did not end when he had kept his patient from dying of hemorrhage or blood-poisoning, but that he should see that his patient was restored to conditions of health both locally and generally. It should be borne in mind that the functional sexual capacity of the woman may be greatly impaired following any period of non-viable delivery.

In abortions prior to the end of the second month Dr. Parish advised rest for eight or ten days in bed or on a lounge, and for several years past he has been accustomed to washing out the uterine cavity with bichloride solution (1 to 4000) by means of a return tube catheter. If the abortion occurs during the third month he uses a smooth wire curette in addition to the injection. After the third month, if bleeding occurs before the os is sufficiently dilated to admit of emptying the womb, he tampons both the neck of the

uterus and the upper part of the vagina. After the os is dilated he empties the uterus of its contents and injects hot water into the cavity to control the hemorrhage. The continuance of the placenta within the uterus even for a few days at a non-viable period of pregnancy endangers the life of the patient from hemorrhage and from septic infection. Dr. Parish believes that when either of these untoward events occurs, the patient never escapes without injury to her child-bearing apparatus.

He said even the rise of temperature, as shown by the thermometer, was not fully reliable unless observed every hour or two, and to wait until hemorrhage, or a rapid pulse or a chill, or decidedly high temperature supervened would prove, in not a few instances, to be waiting until a fatal result was inevitable. Or, should the uterus have emptied itself within a few days without evidence of danger of death, still in the great majority of such cases he believed that grave and perhaps permanent local damage would have resulted.

In incomplete miscarriage there was nothing more uncertain than the action of ergot. After its use the uterus might not empty itself for days or weeks, while the cervix closed so as not only to prevent the escape of the placenta, but also to prevent easy artificial extraction. If it was decided to empty the uterus, what was the best method of doing so? Prior to the third month the small size of the cervical canal rendered the introduction of the finger difficult, and the curette was here sufficiently efficient, either before or after the escape of the ovum. The thickened decidua could then be readily removed with this instrument. After the third month there was chiefly the placenta to deal with, and here the finger was safer, more efficient and more reliable than any curette. The finger more thoroughly and more certainly removed all the products of conception, and told the presence or absence of such complications as polypi, fibromata, etc. When reliance was placed solely on the curette, the uterus might be supposed to be empty when it was not; fragments of placenta and of membrane, or even the entire placenta, might be left, with extreme risk to the patient. If one was present at the time of the escape of the embryo, and the placenta remained, he should at once while the os was dilated introduce his finger into the uterus, and, while depressing and steadying the uterus with the other hand over the abdominal wall, dissect off the secundines *en masse* and completely remove them. To effect this it might be necessary to give an anesthetic. After the uterus was emptied it should at once be syringed with a hot corrosive sublimate solution. There would be, in all probability, no indication for a repetition of the intra-uterine injection, though daily intra-vaginal antiseptic syringing for eight or ten days had been his practice. If the case was not seen until several hours had elapsed, and the placenta was still within the uterus and ergot had not been administered, the os would be sufficiently dilatable to admit of an immediate resort to prompt treatment. If at that time the cervix had already contracted because of ergot, the suspension of ergot and the administration of an opiate, with non interference for a few hours, would secure a dilatation of the os to such an extent as to permit of emptying of the uterus with the finger. If a number of days or weeks or months had elapsed, and the symptoms indicated an incomplete emptying of the uterus, and the cervical canal was closely contracted, it would be better to dilate either with laminaria tents or with graduated bougies, and to introduce the finger than to rely upon any form of curette. After grave septic poisoning had occurred, a cervical canal that had previously been contracted underwent relaxation, and the placenta became detached or was so loosely adherent that its removal with the finger was usually a very simple procedure, and was, according to even the expectant practitioner, urgently demanded; but immediately following removal of the placenta under such circumstances, evidences of more intense poisoning were frequently observed, and in many such cases a fatal termination took place.

Antipyrin Tabloids.

The tabloids of compressed antipyrin (Burroughs, Welcome & Co.) are a very convenient means of ingesting a nauseous drug. We have given them in cases of fever and melancholia. The tabloids are swallowed like large pills, with the aid of a draught of water. Antipyrin undoubtedly produces a feeling of *bien-etre*, especially in cases of habitual low spirits of definite nervous origin, not due to dyspepsia.—*Lancet.*

Enucleation of Uterine Fibroids.

Dr. D. McGregor reports a case (*Lancet*, July 7) in which he removed three intra-uterine fibroids by dividing the capsules, partially enucleating with his fingers, and completing the operation by avulsion. The combined weight of the tumors was twenty-eight ounces. The patient made a good recovery.

Mr. Lawson Tait says that in nineteen cases out of twenty of large multiple fibroid tumors of the uterus, dilatation does no good, and is almost as dangerous as hysterectomy.

On another page, under the head of society proceedings will be found an interesting discussion of vaginal and uterine injections, by the London Obstetrical Society. The diversity of opinion on this subject indicates its importance.

Dr. Charles P. Noble, of the Philadelphia Lying-in-hospital, has found that after kneading has failed to cause contraction of the uterus, the hot water intra-uterine douche, from 110° to 115° F., is the best method of arresting the hemorrhage.

Mr. R. Clement Lucas reports a case in the *Lancet* in which a tumor of the right ovary in a child of seven was associated with precocious puberty. The child menstruated, her mammary glands were firm and the size of oranges, and the pubes were covered with hair an inch in length. Mr. Lucas removed the tumor (which was a round-celled sarcoma), after which the menstruation ceased and the breasts became flattened.

Dr. Wm. Goodell says that the perineum is probably the most sensitive part of the body, and that a mass of dense cicatricial tissue, the result of rupture, makes it more sensitive. We are inclined to think the doctor's opinion is biased by his special line of work. It is not at all probable that the laryngologist, the oculist or the genito-urinary surgeon will agree with Dr. Goodell on this point.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

An aphorism is defined to be a precept or principle expressed in a few words: A short sentence containing some important truth. It may be applied in my judgment to any subject to better advantage than to a medical one.

There is so little in this department of science that is definite and absolute as a truth. As long as man in the concrete differs to the degree that he does from man in the abstract, as long as every individual in health or disease is figuratively speaking a law unto himself, so long will the medical aphorism as a rule be misleading and objectionable. There may be certain general principles which can apply to the consideration of many diseases but the expressions of these principles can not safely take the terse form of the aphorism. Every one of them will bear modification, elaboration and explanation in accordance with the conditions surrounding the individual.

The above thought is suggested by a growing tendency abroad in medical literature to the aphorismatic form of expression. Dr. Chas. E. Warren of Boston, has recently compiled and translated from the French of E. Bouchut, several hundred aphorisms on diseases of children which is interesting, but in many statements inexact, in others common place and again expresses that

which goes without saying, as witness the following—aphorism No. 13: "During infancy, a yellowish tinge of the skin, sclerotic and base of the tongue always indicates disease of the liver."

Does not the finger-board point in the same direction in adult life as well? The same remark will apply to No. 41: "Mental impressions increase the movements of the heart as much as fever." The interpolation of the word "temporarily" would have modified the sentence in the direction of truth.

Medical anxioms then as jewels in our literature should be few and far between,like the bright and glistening diamond pillowed upon the virgin's billowy bosom, for if they be strung together profusely to the number of one or two hundred the effect is garish and confusing and suggestive of pebbles and paste, the unartistic and untrue.

* * *

This is the season of the year when we doctors and the mothers under our direction are in constant dread of the effect of excessive heat upon the little ones but are we sufficiently impressed with the danger of cold? I trow not. I venture the assertion that more infants and adults also, suffer from gastro-intestinal disturbances and other lesions as the result of "taking cold" in the hottest months of the summer than from the heat itself.

The system is thoroughly relaxed, the sweat glands active, the power of resistance impaired from the heat, and in order to secure relief a cool place is selected where the currents of air are free, and it follows from exposure to such drafts as the night follows the day that the surfaces become chilled, the secretions checked,the circulatory equilibrium disturbed, internal organs congested and the individual is sick, not from the heat but from the cold.

We need to learn, whether we belong to the "can't get away club" and have to endure the scorching heat of home or are lucky enough to be in the mountain or at the seaside, that we must protect ourselves and particularly our babies against chilling of the surfaces. Every individual, no matter where located, is safer against disease winter and summer if there be worn next to the skin an all wool fabric. The fiber may be light but every fiber of both garments (shirt and drawers) should be wool. Wool being a non-conductor serves as a guard both day and night against sudden changes of temperature. More than likely, as many cases of cholera morbus and cholera infantum are due to this chilling of the surfaces in the efforts to keep cool, as to heat or improper food.

* * *

There promises to be a large attendance at the coming meeting of the Mississippi Valley Medical Association in this city, September 11, 12 and 13, 1888. Full delegations will come from Indiana, Kentucky, Illinois, Missouri, Ohio and the other states west and south of us.

Papers are promised from Drs.Cook,Owen, Harvey, Woolen, Hays, of Indiana; Gray, Fairbrother and others of Illinois; Reynolds, Wathen, Mathews, McMurtry, Larrabee, of Kentucky; Middlekamp, King, Funkhouser, Dean, Lutz, Mudd, Alleyne, and others of Missouri. A good and interesting programme will be presented.

The Committee of Arrangements invites cordially every subscriber of the REVIEW and their friends.

A good old-fashioned gathering of the profession of the great Mississippi Valley is anticipated.

* * *

There is nothing in the world so good but that it might be better. Medical journals come under this statement.

The *Amer. Med. Ass'n. Jour.* is no exception to the rule. It has an admirable supply of material to draw from, able editors, plenty of means and all that goes to make a good journal. It is constantly improving.

It has recently discarded the colored cover and like the REVIEW appears with a clean white face, and if it will now remove the "ad" from the lower half of its face it will present an exterior to please the most fastidious.

Any journal which goes to the public with

its front emblazoned in offensively large letters with this legend: "*A Perfect Food for Infants, Invalids and Aged People,*" (the said legend being immediately beneath and much more prominent than, the table of contents) reflects upon itself and to say the least is not putting its best foot foremost with the view to attract readers.

A journal run "for revenue only" should not thus offend, but least of all one that is the official organ of so August a body as the American Medical Association.

* * *

Speaking of "August" reminds me that during this month and the previous one, (when the summer season is at its height, when all the medical societies have adjourned, and the high grade and the low grade medical colleges pause in their mad career of grinding out callow M.D's. for the supplying of a market already glutted, and the rural stream with tender lips, its green and mossy margin presses, and even the stately willow dips her beauty to the tides caresses, it is much more to the liking of a tired, weary and oppressed medical editor to go by the banks of the babbling brook and see and hear her babble, to meander neath the forest trees and seek within some silent nook his ease and enjoy the balmy shade and breeze, and sip ever and anon through the medium of a ripened stalk of grain properly trimmed, the limpid lemonade, the merry mint julep, the genial, gentle and seductive gin-fizz, or perhaps, the more domestic milk-shake, (if one be fortunate enough to have the necessary materials at hand for their make-up), than it is to linger in the sanctum, frantically cudgeling his brain in search of an idea,no idea from day to day,industriously scanning his exchanges with paste-pot and scissors in hand, in a vain effort to find an oasis of thought in a desert of dulness, now and again catching through the gloaming of the rear apartments the cry of "more copy," until perforce he sends out matter for filling purposes which in the depths of his heart he knows is very diaphanous and his only satisfaction is in the knowledge of the fact that his subscribers are too sensible to read much in a season like this and weak points may be overlooked. Let the reader remember that these be the dog days, and every poor dog has his day except the one who runs a medical journal, and in taking his day off if he read at all, he must pass all imperfections by not permitting his glittering critical eye to take in errors of fact or syntax.

* * *

In the above a casual reference was made to the milk-shake, but it was not with a view to its endorsement. It is the latest summer craze in cities. Whether it has yet made its appearance in the rural districts has not been announced. It is a dismal delusion and a snare.

The average overheated child or adult who runs the gauntlet of corner dairies, soda stands and their accompaniments of flies, germs, tyrotoxicon, etc., and partakes of a large glass of cold milk the only merit of which is that it has been violently agitated with broken ice, is likely to become violently agitated himself, with broken hopes, cramp-colic and intestinal indigestions.

* * *

The Review is glad to inform the medical profession of the state that their special favorite, the one whom all doctors may esteem their friend, the Hon. David R. Francis has the inside track for the governorship of Missouri.

He is making a brilliant race, he (mark the prediction) will win, he will be strong, aggressive and able as governor and—the end is not yet.

* * *

In the Review of August 4th, appears an editorial long and able from the pen of one of my clear, careful, cultured and thinking colleagues in favor of the killing of Maxwell the killer of Preller, said editorial being instigated by a paragraph upon the same subject in the issue of July 28, 1888, written by myself. I have received one letter from a subscriber (Dr. Hertel) of Illinois, a strong and bright man, also calling for the blood of Maxwell. In the next issue I will present a few points in justification of my chicken

hearted and weak position, although ere these lines shall have reached their readers the soul of the little chloroformer from present indications will have been wafted out (through the medium of the hangman's rope) upon the dark and unknown sea that rolls around all the world, and reached the consideration of a judge merciful as well as just.

* * *

The unfortunate relations of the religous press to quackery has been referred to in the REVIEW often in the past. The flagrant endorsement of a filthy and disgusting book with the title of Tokology by many church journals published in St- Louis, was excoraated with no apparent result.

During the past year the *Phil. Med. and Surg. Reporter* has taken up udgel against the evil, and now comes the Arkansas Medical Society, which at its last meeting adopted the following:

"*Resolved*, That the members of the State Medical Society of Arkansas have for years observed with pain and mortification the patronage given to charlatanism in all its multifarious aspects by the religious press of our country.

Resolved further and more specially, that the appearance in religious papers, ostensibly published for the inculcation of truth and morality, of serious homilies on prayer and praise side by side with cures for consumption, cancer, Bright's disease, and other incurable ailments, to which an editorial indorsement is often given, as well as secret preparations under the cloak of remedies for disease, but really intended for purposes of feticide, and other immoral uses, largely tends to shake the confidence of the profession of medicine in the integrity and purpose of the managers and editors of such journals.

Resolved, further, that it has been the well-known custom of the profession to render services gratuitously to clergymen, which we do not regret, nor do we propose to recall, yet we must assert that the frequent occurrence of indorsements and recommendations of the clergy of peripatetic doctors and advertising charlatans has in many instances been the only reward of our gratuitous services," all of which leads to the thought that this free and generous indorsemeut of patent medicines and charlatanry by some of the clergy is due less to a disposition to encourage humbugry than to a constant running in a theoretical groove above the heads of the the masses which tends to lessen the knowledge of human nature and make one more gullible.

CORRESPONDENCE.

ECLAMPSIA NUTANS.

Gillespie, Ill., July 24, 1888.

EDITOR REVIEW. Regarding the case of eclampsia nutans, the discussion of which appeared in the REVIEW, July 14, I wish to say that while it is true that it is a difficult matter at times to differentiate the different nerve troubles, yet, as each class has its separate or definite symptoms, the task is not as hard as it seems to be. There is no data showing a period of unconsciousness in the case reported in the REVIEW, July 7, during a convulsion, and if there was such a period, it was but a moment in duration. Moreover, the convulsive seizures took place in the same way every time—a falling forward so that the top of the head would strike the floor between the feet. This is not the case in epileptic seizures, and beside, in this case, they invariably came on in the morning soon after rising, and were, to my mind, mechanically produced by bilateral clonic contraction of the sterno-cleido-mastoid, the muscle on the left side contracted to a greater extent than its fellow of the opposite side, which caused the left side of the top of the head to invariably strike the floor. This is a distinct symptom from what usually occurs in epilepsy. There were measurements of the head taken while in the enlarged condition, and sent to Prof. Mudd, and the measurements taken after this trouble had subsided were sent to you. My recollection of the matter is that the measurements did not show a very great enlargement of the head, but sufficient to

warrant a conclusion of a separation of the sutures. By what authority can you eliminate so important a symptom in making a diagnosis in this case as the probable swallowing, followed by the actual vomiting of a great mass of clotted blood just prior to the complete subsidence of the enlarged condition of the head? This symptom, in my judgment, is a positive factor, was positively present.

The intelligent history of its occurrence, together with my examination of the blood mass the next morning precludes even the possibility of a doubt on my part. It may seem paradoxical, but nevertheless it is true. If there was a hematoid tumor present it could not have been located between the scalp and pericranium, nor between the pericranium and bones of the head and find an outlet into the nasal chambers. It could only be located as stated in my paper that was read by you before the society. Now, my dear doctor, if in attempting to find the value of an unknown quantity in a mathematical proposition, an important factor is eliminated in the sense of setting it aside entirely as unimportant, the conclusion would evidently be erroneous.

Yours, very respectfully,
WM. M. GROSS.

SOCIETY PROCEEDINGS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting June 12, 1888.

DISCUSSION OF DR. MILLER'S PAPER (SEE PAGE 142.)

DR. JOHN B. ROBERTS.—It is a curious fact that the medical mind has not appreciated the possibility of bone production, despite the frequent instances that must always have come under notice. I was taught in cases of comminuted fracture, to take out the spicules of bone that were entirely separated from the larger fragments, lest they should necrose and give rise to trouble. Now it is the practice of the best surgeons to leave the spicules, and we find that often they do not die, and that they assist in the process of union and solidification. This experience is in the same line as the facts given by Dr. Miller in connection with his interesting cases. If these spicules of bone can reunite, why not the button removed by trephining? Why is it not good practice to insert, when necessary, a portion of dog bone or chicken bone? as, indeed, has been done. We must not forget, however, the importance of asepsis, and that it is antiseptic surgery that has made these procedures possible.

In a case such as Dr. Miller reports tonight, where he rotated the button of bone, turning the groove in which the inferior dental nerve had run at right angles to its former direction, I should be inclined to still further, and turn it upside down. The bottom of the pit in which it is to be placed, and the periosteal surface of the button being scraped, the ungrooved, freshened surface, formerly external, would then be placed inward, and a bony plug would be interposed between the divided ends of the nerve, probably preventing the reunion and return of pain which so often occur.

The case of tibial resection has been very interesting to me, as I have recently operated upon a similar one; the patient being, however, a woman of about fifty years, so that I cannot hope for as complete a closure of the cavity in the bone as in this growing child, exhibited by Dr. Miller. In that case I removed the whole front of the tibia, going as near the articular cartilages above and below as I dared, the process of repair is like that we see in a tree. We know that if a foreign body is inserted into a wound made in the trunk of a young tree, the process of cell growth will go on about it, and finally it will be completely covered in, and its presence be unsuspected, until, perhaps, the saw strikes it, as the tree is being converted into lumber.

Dr. Keen, in his recent case of trephining for brain tumor, returned the button of the skull removed, and the patient was able in a

few days to walk around with a perfectly healed and reunited cranium. Then we know what the dentists do in the way of transplantation of teeth, or return of teeth to their original sockets after removal of diseased portions. More remarkable still is the implanting of old, dried teeth into new sockets, bored in jaws from which even the alveolar process had disappeared, and their becoming fixed there.

Dr. George E. Stubbs.—In reflecting upon these cases, and similar ones, it occurs to me that perhaps in the numerous resections we have done in army and in civil practice, we have made mistakes. Surgery has advanced immensely since the war-time, and antiseptic surgery has opened new possibilities. Often in my army practice we removed all the bone when there had been a comminution. I should now, with our new light, try to save more of the broken bone, and so shorten the period of recovery.

In regard to operative treatment of neuralgia, I believe that we are entering upon a stage of work that will be much enlarged in the near future. I had a case recently in which neuralgia of the inferior dental nerve had existed for nearly seven years. I removed one and three-fourths inches of bone with the dental engine, took out as much of the nerve as I had access to, and dressed and treated the wound antiseptically. The wound healed by first intention, and as yet there has been no return of pain; so that I consider I have obtained a very good result.

The Chairman, Dr. Nancrede.—The first question to be answered in a discussion of this kind, is, What constitutes the periosteum? If we mean a fibrous membrane, the inner layer of which consists principally of yellow elastic tissue, then we must agree with Macewen's extreme views, and admit that it has nothing to do with bone repair. But if we study the normal process of bone development, I, at least, must arrive at a different conclusion. The long bones are laid down in cartilage, a temporary structure. How do they ossify? By means of this very periosteum, which Macewen treats with such contempt, and which Ollier exalted too highly. There is a third layer of the periosteum in direct contact with the bone, and this layer is composed entirely of those elements which, wherever we see them, we recognize as the agents of ossification—the osteoblasts. The temporary cartilage is invaded by connective tissue, ingrowths from the periosteum, covered with osteoblasts, and is eaten up by them; and we find it permeated, and finally replaced by a net-work of fibrous tissue covered with osteoblasts. A certain number always remain beneath the periosteum. A certain number, very small, remain in the Haversian canals, a still larger number in the medulla.

It is clear to me why compact tissue dies; it has so few osteogenetic cells. The medullary tissue lives because it is comparatively rich in osteogenetic elements. Why does bone die when the periosteum is stripped off? Because the resulting inflammation is so severe that the inflammatory tissue strangulates the osteoblasts in the Haversian canals. With antiseptic means we now control the inflammation, and the osteoblasts are not killed, and the bone is saved.

We are very hard, nowadays, on the periosteum. The fibrous layer has nothing to do with bone repair, but its osteoblastic layer is in direct communication through the lining of the Haversian canals with the medulla; it is practically one structure; and thus, if we look at this matter from the standpoint of a correct histology, we find that both views are correct, provided only that we have a distinct understanding what is meant by the word periosteum in each case.

As to Dr. Miller's case, I cannot quite agree with him as to what formed the bone in the case of total excision of the diaphysis of the tibia. While the shaft was dying, new bone was formed by the deep layer of periosteum, but after that the medullary spaces of the involucrum completed the bone.

I would also take exception to Dr. Robert's proposition to scrape the button of bone and turn it inside out, in the case of trephining the jaw for neuralgia. By this process he would remove all the osteoblastic cells, and

the compact tissue would have a very good chance of dying. One reason for failures in operations about the lower jaw, is that it contains so little true medullary tissue, while, on the contrary, we can replace trephine buttons in the skull and have union, because the skull contains a large amount of such tissue.

I think Dr. Stubbs need not blame himself for his practice in resecting in military surgery. The necessary condition to bone repair is that absence of suppuration afforded by antiseptic methods, and under the conditions present in the operations he speaks of, he did right. And, to-day, he does right in trying to save the bone. In each case he takes the proper course in relation to the circumstances, and that is all any one can do.

The case of Dr. Agnew, referred to in the paper, occurred some twenty odd years ago. I saw the operation. The wound was completely covered by granulations. The fact that a denuded external table did not always necrose was known to Potts, and to all the older as well as modern surgeons; and if Ollier had not led us astray by grafting, by insisting upon the periosteum being the sole osteogenetic agent, ignoring the fact that in removing it a layer of cells identical with those of the medulla are torn off, I think we would have arrived at a correct practice sooner. But surgeons went wrong by authority of Ollier, as they are now going wrong in the other direction by authority of Macewen.

In regard to the implantation of dead teeth, which Dr. Roberts refers to, the principle is probably the same as in the bony pegs we used to employ for ununited fractures. They are hollowed out by the granulation tissue which develops into a fibrous or even osseous tissue, and so holds the tooth in place by these newly formed digitations.

About twelve years ago I exhibited to this Society a case in which I resected four and a half inches of the humerus, and about two and half inches were reproduced from the sawn end. This was without antisepsis. In the case referred to by Dr. Miller, where I drilled the ulna, I am sure that the bone granulations fused with those of the soft parts for these reasons: the shell of bone when detached was not more than one fourth the thickness drilled through, while the new bone was nearly as thick as the ulna of the other side, as the cicatrix was not materially depressed. A recent experience in a case of knee-joint excision, induces me to recommend that instead of wiring fragments of bone we nail them together, after having previously drilled, or not, according to circumstances, allowing the heads of the nails to project through the skin. We thus save trouble, and avoid damage in the removal.

Dr. Roberts.—Dr. Nancrede misunderstood me in regard to scraping away the cancellated tissue in reversing the plug in the case of trephining the lower jaw. I would scrape only what he calls the fibrous periosteum from the button, and from the bottom of the pit in the jaw I would take away the cancellated structure sufficiently to remove all trace of the nerve canal. The two raw surfaces would be placed together, and, by sinking of the button, would be a solid bony plug, interposed between the nerve ends.

Dr. Miller.—I do not see any advantage in reversing the plug over rotating it. The groove being at right angles to the course of the nerve, the part in contact with the nerve is still solid bone, and the groove does not matter at all. In relation to the tibia case, the reason I emphasize the fact that the repair took place from the periosteum, is because there was entire death of the old bone with the involucrum, and the periosteum did not die.

OBSTETRICAL SOCIETY OF LONDON.

Meeting Wednesday, July 4, 1888. John Williams, M.D., President, in the Chair.

The Conditions Which Favor Mercurialism in Lying-in Women, With Suggestions for its Prevention.

This paper was read by Dr. Boxall. The question was debated under two separate headings; (1) increased absorption; (2) defec-

tive elimination. Under the first head, the site of absorption was discussed; the question whether the solution obtained entrance to the cavity of the uterus when the uterine tube had not been employed was debated, and an experimental investigation undertaken with a view to determine the point was related. It was suggested that absorption not infrequently occurred inside the uterus, even when the uterine tube had not been employed, but that it might also take place through the lacerated surfaces of the cervix, vagina, and perineum, or even through the intact mucous membrane. Reference was made to the experimental research conducted by MM. Doleris and L. Butte which bore on this point. With a view to diminish the risk of absorption it was suggested: 1. That not only should care be exercised to obtain contraction of the uterus, but that it should be also carefully maintained, and, above all, that the douche should always be given at such a temperature as would stimulate the uterus to action. 2. That the douche should invariably be administered in the supine position, the uterus at the same time being supervised by one hand placed on the abdomen. 3. That, when the administration was completed, the precaution should invariably be taken of ascertaining that the uterus was contracted by palpating the abdomen, and, if distended, the fundus should be squeezed like a sponge in the palm of the hand, and at the same time should be depressed with the object of evacuating the vagina. 4. That the surface of lacerations about the external orifice should be brought together, and any abrasions which remained should be coated with some material impervious to the solution. Under the second head, the relative eliminative power of the different excretory organs was discussed, and special attention was directed to the condition of the kidneys and intestine. The following suggestions were offered: 1. That chronic nephritis, and probably also those changes which occurred in the kidneys during pregnancy, might, by diminished elimination, produce an accumulation in the septum. 2. That the intestines possessed an equal if not a greater eliminating power than the kidneys. With a view to obviate the risks arising from defective elimination. 1. That, when the kidneys were affected, the sublimate douche should not be employed, or, if used, extreme caution should be exercised. 2. That a free watery flow should be promoted by the kidneys, and that especial care should be directed to this point in hot weather. 3. That the bowels should be evacuated daily, either by salines or by the administration of such agents as produced copious and loose stools. A tabulated series of eleven cases which presented symptoms of slight mercurialism was appended. A fatal case of mercurialism was also narrated.

Dr. Matthews Duncan called attention to the easy distention of the puerperal uterus by injections, even long after delivery. Distention shortly after the birth of the child, as in post-partum hemorrhage, was better known.

Dr. Boxall had apparently overlooked a mode of conveyance,otherwise than by absorption, into the circulation. This was easily understood after delivery, when there were open sinuses at the placental site; but it might take place in the unimpregnated uterus, as Dr. Duncan had shown in a case of injection of a solution of perchloride of iron. The sudden deaths on injection of that agent were to be explained only in this way. The fluid entered in bulk, not by aborption.

Dr. Routh considered that Dr. Boxall's paper was admirable. Nevertheless, he thought that the routine practice of sublimate injections was carried too far. In one of the recorded cases the redness of the gums on the third day might not have been caused by the sublimate, but the mercurial symptoms came on by the sixth day. This proved that they were due to the prolonged use of the sublimate injections. The strength of the solution was reduced to 1 in 4,000 after the third day. This practice, however, might cause the evil it was designed to avert, for a weak solution could be readily absorbed; a stronger preparation would coagulate the albumen and thus stop the mouths of the ab-

sorbing vessels, preventing the entrance of septic substances from without. The cases where he had seen nephritis and albuminuria following this absorption were precisely those where weak solutions had been employed. Dr. Routh recorded the case of a patient who, in consequence of pendulous abdomen, had gone one month beyond the usual term of gestation. Septicemic symptoms occurred at the end of every week for four consecutive weeks. Iodine injections always removed the serious symptoms, but, as they recurred so often, he used a corrosive sublimate injection, one grain in two ounces of water at the end of the fifth week. A considerable quantity of albuminous flakes came away, and the patient made a perfect recovery. In ordinary cases Dr. Routh preferred iodine vaginal injections, thirty drops of the tincture to half a pint of warm water, the water being as hot as the patient could bear whenever there was any smell. He believed that the hot water alone coagulated the albumen and destroyed germs. Only when there were feverish symptoms threatening septicemia was it necessary to inject the uterus. A strong solution of the perchloride, 1 part in 960 at least, should then be used. Dr. Routh thought that the volatility of iodine was an advantage. It could penetrate tissues where sublimate could not enter. He noted what was seen in a necropsy on a case already recorded by Dr. Grigg, where septic symptoms had occurred, and sublimate injections had been used. The mercury had only acted on two-thirds of the uterine cavity, which was white and sweet. The upper third was in a gangrenous condition. Iodine would have reached every part of the uterus.

Dr. Samuel Sloan (Glasgow) favored the abolition of the routine practice of vaginal injections in natural cases. He had discontinued routine injections, both in private and in hospital practice, for some years, and since then his results were better than before. He could not say whether this signified that injections interfered with natural processes or that it was difficult to keep the tubes, etc., used in routine injections absolutely clean. When any cause for suspecting sapremia or septicemia arose, he then used mercurial injections, but in private practice this was an extremely rare event. In such cases, however, mercurialism was most unlikely to occur, because the need for the drug would diminish its activity. Dr. Sloan did not advise the discontinuance of antiseptics in hospital practice, but he objected to the routine use of injections even there. In private midwifery practice he had to a large extent given up antiseptics, for he believed that women could be kept aseptic by absolute cleanliness, healthy surroundings, and skilled management during pregnancy, labor, and the puerperism their resisting power being at its maximum, and the tendency to decomposition at the minimum; the lochia did not naturally decompose. When mercurial injections were skilfully given, ballooning of the uterus could not take place. The organ must be firmly grasped by the hand during the process of injection, and by pressing back the perineum whilst the woman coughed, retention in the vagina was avoided, especially if the patient were placed in the semi-supine position.

Dr. Champneys thought that the days were past in which a speaker who talked about "antiseptics in midwifery not being necessary" would find supporters in the society. There was some difference of opinion as to routine injections. Sepsis had for some years been entirely abolished at the General Lying-in Hospital. Dr. Sloan did not appear to have been so successful in his own practice at Glasgow. Dr. Champneys thought it strange that anybody should be accused of want of care by a gentleman who attributed his own results to "dirty enemas." Routine use of vaginal douches might not be absolutely necessary, in private at least; they were far less important than antiseptic cleanliness of the hands. Still Dr. Champneys had used routine douches for years and years, and was more satisfied than ever with them; they proved beneficial in several ways. The material to be used for the injections was open

to debate. In ordinary cases he did not use sublimate on account of the risk of mercurialism, and a weak antiseptic such as iodine would probably suffice, except in special cases, at an institution like the General Lying-in Hospital, where the midwives and nurses so thoroughly understood the antiseptic system. Dr. Champneys did not see how the semiprone position could be the best, when vaginal injections were employed. It was highly inconvenient; the bed could with difficulty be kept dry, and gravitation of the injection into the uterus and subsequent absorption would be favored rather than prevented. He regretted to hear about the "germ-resisting power" of a woman. In the old days before antiseptics young healthy women succumbed in large numbers to puerperal fever.

Dr. Herman had noted, in his own experience, a frequency of mercurialism nearly the same as in Dr. Boxall's series of cases. Assuming idiosyncrasy was the reason of the mercurialism, it appeared that this idiosyncracy was present in about 5 per cent. of all cases. Dr. Herman could not trace any connection between weather and the occurrence of mercurialism. He had seen a temporary trace of albumen in the urine in only two out of the eleven cases of mercurialism in his own hospital (referring to 182 patients admitted into the General Lying-in Hospital in the first half of 1886; in two of the eleven cases it was not certain that the symptoms were really due to mercury). In two cases of Bright's disease during pregnancy, sublimate douches, administered as in all the other hospital patients, had caused no symptoms of poisoning. Anemic patieuts were not specially prone to mercurialism. Altogether, perchloride of mercury was the best antiseptic in hospital practice. It was not so safe in private cases, except under two conditions: the nurse who gave the douche should know the dangers of ballooning of the vagina and how to prevent it; secondly, the obstetrician should attend the case at least daily, so that he might perceive the first symptoms of mercurialism. When he ceased his daily visits, the use of sublimate should be left off. "Germ-resisting power" must not be trusted. He could not offer information as to the effect of sublimate douches in septicemia, for during the two years and a half he had been attached to the above named institution there had been no case of that complication.

Dr. Cullingworth laid greater stress on cleanliness of hands, instruments, sponges, and everything brought into contact with the genital tract, than on uterine and vaginal injections. It was questionable whether germicide solutions should be introduced into the body of the patient. It was not the organisms already there, but those which might be introduced from without, which were to be feared. To prevent the ingress of the latter was the object of antiseptic midwifery; this object was obtained by efficient disinfection of the hands, instruments, etc., by processes which did not involve any danger of mercurialism. The antiseptic method must not be made too complicated, else practitioners could not adopt it. Warm vaginal injections were both soothing and useful; they, above all, promoted cleanliness, which could be obtained by harmless ingredients as easily as by poisons like sublimate. Even in cases of sapremia, where at least one thorough intra-uterine injection was of value, milder chemical agents than sublimate were probably sufficient. Chemical products of decomposition probably caused the harm in these cases, as the symptoms disappeared as soon as the uterus was emptied. When septicemic symptoms had developed, it was useless to employ sublimate, for no douche could reach germs which had already entered the circulation.

Dr. Leith Napier thought that, in private practice, a hot saturated solution of boracic acid was best for douches. In hospitals, sublimate solutions were suitable, but they should be very dilute. Strong preparations coagulated albumen. It seemed better to employ a solution which, by absorption, might act generally as well as locally. He thought that mercury was eliminated not only by the intestine (where the unabsorbed portion was

found as an insoluble sulphide), but by all the secretions.

Dr. Routh here observed that during convalescence he almost invariably employed iodine or Condy's fluid for vaginal injections, and that as to the good effect of the mercurial solution (which Dr. Cullingworth doubted) in the septic case, "the proof of the pudding was in the eating," as complete cure occurred.

Dr. Lewers said that during the year 1887, 962 women had been delivered in Queen Charlotte's Lying-in Hospital, with only two deaths.

Dr. Boxall then replied. He thought that the direct passage of sublimate into the system was quite exceptional, and occurred when other antiseptics were used. In the rules for the administration of the douche, included in his paper, he had made allowance for ballooning of the vagina and uterus. The coagulating action of sublimate did not necessarily imply that its antiseptic influence was strictly local, still less that absorption of mercury was prevented. The coagulum at first formed was soluble in excess of albumen. Sublimate brought into contact with albumen was at first precipitated, and mercury in considerable quantity might thus be retained within the passages. But the action of the albumen of the blood and tissues dissolved the coagulum, which was then liable to be absorbed. The primary precipitation of the mercury tended to retention (hence a further reason, were any needed, for complete evacuation of the uterus), whereas the faculty for being redissolved might ultimately result in a large influx into the tissues. Whether the solution of albuminate in excess of albumen was itself a reliable antiseptic required elucidation. In conclusion, Dr Boxall insisted on the superiority of perchloride of mercury over iodine and other antiseptic agents.—*Brit. Med. Jour.*

SELECTIONS.

SUDDEN DEATH DURING OR FOLLOWING LABOR.

BY THEOPHILUS PARVIN, M.D.

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Whether one believes with the Roman Emperor that the death which is most sudden is that most to be desired, or place it, as is done in the rubric familiar to all, at the climax of earthly calamities, such event is always startling, and usually most painful to the witnesses. This pain is greatest, the misfortune almost without exception the gravity if a mother dies in child-birth or soon after. Many causes conspire to make such an event peculiarly sad. The abrupt severing of new ties, the loss of life in giving life, the sharp contrast between an infant living and a mother perishing just when the former so greatly needs the loving care of the latter, are among these causes.

The obstetrician not unfrequently suffers public reproach when such an event occurs in his practice, for people are slow to understand how that which is in the majority of cases a simple physiological process may have a fatal issue. Moreover, in some instances death can be averted if the practitioner, forewarned of its imminence; uses appropriate means, in others the prophecy of such an event as possible, probable or inevitable may protect his reputation, and in still other cases if prophecy should fail, the event coming unexpectedly to him as to others, casting no shadow before it, his ability to explain its cause is very important. It is, therefore, alike the duty and the interest of the obstetric practitioner to study carefully the causes of sudden death in child-birth and the first part of child bed.

Constant supply of oxygen to the organism, and the regular distribution of blood suitable for nutrition, are the two essentials for the continuing of life, in other words the lungs and heart must perform their respective functions,

and thus the tripod of Bichat is replaced by a biped, for the brainless fowl lives, though it instantly perishes if deprived of heart or lungs. In most cases of sudden death, the heart, the ultimum moriens of Galen, first stops, or, in other words, death is caused by syncope, not by asphyxia. If death begins at the lungs, the fatal event is usually slow in progress; nevertheless, it may then in some instances be sudden, as from pulmonary embolism, just as, on the other hand, cardiac death does not always occur even rapidly. In still other cases, lungs and heart may both fail, the failure of neither being the exclusive cause of death.

Without designing or desiring to classify the causes of sudden death as cardiac, or pulmonary, or cardio-pulmonary, as observed by the obstetrician, I shall present the chief immediate causes of sudden death.

1. Death From Mental Emotion.—The fact that syncope may be caused by a strong mental impression, as fear, anger, joy, or sorrow, is familiar to the profession as well as to the public. A reasonable supposition is that in such cases the impression upon the brain is first reflected to the bulb, then probably through the pneumogastric nerves; the bulb itself arrests the action of the heart, and hence the sudden paleness, the cerebral anemia, and the syncope. Wundt, adopting Kant's classification of emotions into sthenic and asthenic, says that the former kill by apoplexy, and the latter by cardiac paralysis, or rather by the interruption of cardiac function which energetic and persistent excitement of the inhibitory nerves of the heart causes.

Several examples of sudden death from great joy are mentioned by Tuke in his well-known work, and Montaigne has recorded one of the most striking instances in which this was caused by profound sorrow. The familiar lines uttered by Malcolm in "Macbeth" show that the great master of tragic poetry recognized the truth that deep grief might cause fatal syncope:

"The grief that does not speak
Whispers the o'er-fraught heart, and bids it break."

The greater nervous susceptibility of woman than of man, and its notable increase during pregnancy, would explain the special liability she would then have to be injuriously affected by a profound emotion, whether of pain or of pleasure. It has sometimes happened that a premature labor has been thus caused, and in rare cases the this labor soon followed by death. But such untoward results are probably, as a rule, only consequent upon powerful depressing emotions, or those which by Kant were called asthenic, such as great sorrow, grief, or fear, suddenly occurring. In case death follows this premature labor, it may be explained as caused by exhaustion, or the immediate cause may be hemorrhage from uterine atony, this atony itself being the result of the prostrate condition of the system.

Chevallier has collected and narrated cases of sudden death occurring to puerperæ which he attributed to idiopathic asphyxia. But, as remarked by McClintock, "some very competent authorities look upon the mortal affection described by M. Chevallier as merely a form of syncope." Undoubtedly the latter term is the correct one. It is remarkable that several of the cases adduced were those in which death followed a strong emotion, in other words. they were instances of fatal emotive syncope. One of these, for example, taken from Morgagni, was that of a multipara who, after an early labor, was delivered of a girl, her husband and she both being desirous of a boy; the sex of the child was imprudently told her, she was affected with such deep sorrow that her pulse became weak and her skin cold, and in a few hours she died; theautopsy presented no satisfactory cause of the fatal result.

McClintock quotes from Travers the following case: "A young lady, happily married, impressed probably by some unexpectedly fatal occurrence in the circle of her friends entertained, from the commencement of her pregnancy, a morbid fear of death in child-birth, which although unwarranted by any indication, became, from its continuance and increasing strength, a source of anxiety

to one of her immediate and confidential relatives. She was attended by a skilful and experienced accoucheur, who was also her relation. He assured me that the labor was in all respects easy and safe, and that not a single unfavorable circumstance attended it. The child was still-born and imperfect. The mother died suddenly in six hours after delivery. Every region of the body was examined with care by an eminent anatomist, and presented the appearance of health."

Mordret has taken from LaMotte's "Observations" the case of a laborer's wife, who had to accept, though greatly dreading, the service of this celebrated accoucheur in a difficult parturition. LaMotte found an arm hanging from the vulva, and he readily performed version and delivered her of a dead child; the placenta too was delivered, but the woman was trembling, though she had no chill, and, half an hour after the labor, died without previous hemorrhage, pain, or any other appreciable accident. Mordret believes that the death was owing solely to fear.

2. Death may Result From Severe Suffering.—A temporary syncope from violent pain has been often witnessed not only in females but in males, not only in adults but in children. It is not wonderful that the sufferings of child-birth, if very severe or protracted, should cause sudden death. Mordret remarks that an acute and continued pain is the most active enervant, and many times women die in labor or soon after, and the fatal result cannot be attributed to anything else than the excessive pains of a long and difficult delivery. The elder Ramsbotham and Travers had previously expressed a similar opinion.

3. Death may be Caused by Disease of the Heart.—Cases of sudden death from fatty degeneratien of the heart have been reported by Purefoy and Jenks. That of the former is as follows: The subject was thirty-six years old, and a primigravida. A short time before labor began, she complained of difficult breathing and precordial impression, and the symptoms increased in severity with the progress of parturition; she died during the first stage. At the autopsy, the uterus and its contents were found in every respect normal; the os was dilated to the size of a crown piece; the presentation normal. The abdominal viscera were healthy; the lungs were in a state of recent congestion; the pericardium contained about two ounces of reddish colored serum, whilst the heart was much enlarged, being in its greatest length about nine inches, and from four to five inches in breadth at its base. "This organ had undergone fatty degeneration to a considable extent, with the usual softening of its muscular fiber, and, thus being unfitted for its office, had failed to fulfill its all important function in the hour of need."

Franz has reported the case of a multipara who died just after the delivery of the placenta, complaining of cardiac distress; the autopsy showed a fatty and dilated heart. Danyau in 1852 also reported a sudden death from the same cause, twenty days after labor.

Rupture of the heart has been in some instances the cause of sudden death of puerperæ. In a case reported by Spiegelberg, death occurred in five minutes, three days after labor, and the autopsy showed rupture of the left ventricle as a consequence of acute myocarditis. In M'Nicoll's case, a woman, two weeks after delivery followed by normal convalescence, while getting out of bed, exclaimed: Oh! nurse, something has given away! I'm fainting." She died in twenty minutes, and upon post-mortem examination there was found an opening half an inch long in the walls of the right ventricle, which were very thin, fatty degeneration of the heart existed, although not to any great extent.

In connection with the first case reported, the views of Coste may be stated. According to him, sudden death after delivery is due either to a hemorrhage, or to a thrombosis of the pulmonary artery, or to a myocarditis. As hemorrhage causes death more or less rapidly, and as, on the other hand, thrombosis of the pulmonary artery appears to be caused by a degeneration of the myocardium,

we may conclude that sudden death after labor is almost always the result of myocarditis.

4. Death may be caused by Rupture of the Aorta.—Henricius has reported the case of a multipara, thirty-eight years of age, who, in the second stage of labor, the uterine contractions being good, and her general condition excellent, had suddenly occurring spasmodic contractions of the lower jaw and of the members for a few seconds, and then died. The forceps was used five minutes after the death of the mother, and a child delivered which was with difficulty resuscitated. The autopsy showed rupture of the aorta, which was attributod to increase of blood-tension caused by the violent uterine and abdominal contractions on the one hand, and on the other simultaneous reaction of the heart against this obstacle.

5. Death may be caused by some one of the Accidents or Complications of Labor.—Thus a patient may perish in eclampsia from acute asphyxia, though usually when asphyxia is the cause of death in this disease it is gradual, or it may be rapid, but rarely sudden. Inversion or rupture of the uterus may be immediately fatal in either case from hemorrhage or from shock, or probably in most cases from the two combined. Hemorrhage during labor, both when the placenta occupies its normal site and also when it is previous, and hemorrhage after labor may be the cause of sudden death.

6. Pulmonary Thrombosis has in several instances caused sudden death, but usually this accident does not occur in the earlier period of childhood, and it is generally preceded by phlegmasia alba dolens. The unhappy victim may have taken the erect or sitting position, after having been recumbent for days or weeks, or made other slight exertion, and death come suddenly almost as if from a thunderbolt.

But death may be caused by embolism just after labor, as a consequence of artificial thrombosis in a uterine vessel. Herman and Brown have reported the following case: An intra-uterine injection of a solution of perchloride of iron was used for post-partum hemorrhage, and the woman died, the death being attributed to an embolus from a thrombus in the uterine vein.

7. Death may be caused by the Entrance of Air into the Uterine Veins.—Churchill, who almost alone among writers of works upon obstetrics very fully considers the subject of sudden death in the puerperal woman, states that the absorption of air by the uterine veins was suggested by the younger Legallois in 1829, and by Ollivier in 1833, as being possibly the cause, at least of some, of the sudden deaths after delivery. Hervieux, after a full consideration of the subject, and the presentation of cases of death apparently from air embolism, gives the following conclusions: 1. The incontestible reality of cases of sudden death from the presence of gas in the circulatory system of lying-in women. 2. The impossibility of attributing the presence of these gases to cadaveric cause—that is, to beginning putrefaction; the proved chemical identity of these gases with the gas of the blood, and the probability of their spontaneous development during life; the necessity of attentively watching lying-in women who have had severe uterine hemorrhage, and although the introduction of air by the uterine veins has not been proved, the duty of the practitioner not to resort to intra-uterine injections except with the greatest reserve, and rigorously conforming to all the precepts of art.

Hervieux's scepticism as to the entrance of air into the uterine veins is not now at least the voice of the profession, for numerous cases have demonstrated the fact. Thus in the patient of Olshausen, there was employed while she was in labor a uterine douche to hasten effacement of the cervix, she complained of pain, raised herself up in bed, gave some deep inspirations, and died in a minute. At the autopsy, made eight hours after death, bubbles of air were found in the cardiac vessels, in the uterine veins, and in the inferior vena cava. In Litzmann's case, four uterine douches were given with Mayer's pump, to induce premature labor; suddenly the woman

became livid, and died in a few seconds. The post-mortem, made sixteen hours after death, showed bubbles of air in the uterine veins in the ovarian and renal plexuses. Gunz has reported a case of a girl twenty years of age who was found dead in her room, having between her limbs an irrigator, the cannula being in the vagiua. She was found to be three months and a half pregnant, and the death was shown to have resulted from the entrance of air into the veins, the cannula having penetrated the cervical canal. Spontaneous entrance of air is illustrated by the following case: A secundipara, twenty-five years of age, was after an easy labor delivered of her child while lying upon her side; she was then turned upon her back, gentle massage used, and the placenta was expelled. The face suddenly became livid, the respiration labored, the pulse weak; after vomiting a little mucus, and after slight convulsive movements, she became collapsed, and died. At the autopsy, the uterus was found as large as the head of a child, and its walls relaxed. In compressing the posterior wall and the fundus of the uterus at the place where the placenta had been attached, fine crepitation was heard; when the organ was thrown into water, a great number of small bubbles of air escaped. The parts of the uterus near the cervix did not appear to contain air, nor did the veins of the broad ligament, the ovarian veins, or the vena cava.

Another instance is the following: Cordwent has given the history of a primipara, twenty-eight years old, who was delivered while standing of a living male child which fell to the floor, dragging the placenta and membranes with it. A "gurgling" was heard by the attendants, and the woman died almost immediately. At the post mortem, air was found in the uterine wall at the fundus, in the coronary vein, and in the right heart.

Lauffs has collected 43 cases of air entering the uterine veins. In 17, the accident was caused by injections into the birth canal; 18 were spontaneous, and 8 resulted from the formation of gas in the uterus. Thirty nine of the 43 were fatal, and the presence of air was proved by the autopsy in 31.

8. Sudden Death may be caused by an Affection of the Respiratory Organs.—Mordret quotes from Deviliers a case in which death occurred during labor five or six minutes after sudden aggravation of the symptoms of pulmonary congestion. At the autopsy, no other lesion than congestion of both lungs was found. La Motte has narrated a case in which death occurred suddenly after labor from a severe attack of asthma, and Depaul one in which the cause of the fatal result was pulmonary emphysema. Instances of puerperæ dying from pneumonia or from pleuro pneumonia have been recorded, but in these cases the death was rapid rather than sudden. Pulmonary apoplexy, however, may cause sudden death,

There have been thus presented the chief causes of sudden death during or after labor. It must be added that, in a few instances in which such death occurred, it has been impossible even by a post mortem examination to find the cause of the accident.

Merriman, under the head of "Dystocia Syncopalis," has given the following report of a case of sudden death in which probably the autopsy would have failed to show any organic lesion: "An accoucheur was once attending a woman in labor with her first child. Soon after it commenced, and during his absence, she fainted without any obvious cause. On his return, the circumstance was mentioned; but, as by this time she appeared perfectly recovered, no further notice was taken of it, and she was safely delivered without any other unusual symptom. On the third day after delivery, she took a dose of aperient medicine, and, while in the act of relieving herself, fell back and immediately expired. Probably no care would have prevented this unfortunate event. It was perhaps inexpedient to give the patient a purgative under such circumstances—a clyster would have been a more appropriate remedy, and at all events an erect posture should have been strictly forbidden."

Charles has recently reported a case in which the death was attributed by him to uremic poisoning.

Spencer has reported the case of an anemic primigravida, who had eclampsia and premature labor, giving birth to twins; sudden death occurred, and the autopsy showed a large quantity of blood in the abdomen, no rupture of the uterus, but a gastric ulcer with rupture of an artery.

The late Dr. Charles D. Meigs in 1849 directed professional attention to heart-clot as a cause of sudden death in the puerpera, claiming to have discovered that this accident most commonly depends "on the sudden coagulation of the blood that occupies for the time the right auricle of the heart, and, in some of the cases, even that which is in the ventricle and pulmonary artery." His theory was that, in consequence of hemorrhage, the coagulability of the blood being increased, sudden exertion caused fainting, and in consequence thereof "the blood is likely to become concrete, if it but come to a stop in the auricle."

Playfair in 1871 reported a case of sudden death after labor which he attributed to a thrombus in the right side of the heart and pulmonary arteries.

Haughton has reported the case of a multipara who, ten days after normal labor, left the bed to evacuate the bowels; sudden syncope occurred, and in forty minutes she died. There was no post-mortem, and heart clot was suggested as the probable cause of death.

Dr. Fordyce Barker states that "observations have demonstrated that clots may form both in the pulmonary artery and in the right cavity of the heart, as a primary lesion."

Pathologists have not settled the question as to the formation of a primary thrombus in the right side of the heart and in the pulmonary arteries, some denying its occurrence.

The preventive treatment of this accident needs only brief consideration. Some of the cases here presented carry their own moral, plain to him who reads; in other instances, no human science and skill could have averted the fatal issue—death was inevitable.

It is important that the obstetrician should know not merely the physical, but also the mental, condition of his patient; knowing the latter, he may, by prudent speech and thoughtful suggestion and wise tact, defend her from perils to the body that come through the avenue of the mind. Coleridge said that he was the most successful physician in the treatment of nervous diseases who was most successful in inspiring hope. No matter how learned an obstetrician may be in a knowledge of the phenomena of labor, how great his experience, and how wise and skilful in the employment of artificial aids to labor, he makes his qualifications still greater if he knows how in all cases to inspire hope, dissipating gloomy forebodings, and sedulously guarding patients against all injurious mental influences, whether ignorant suggestions of meddlesome friends, or true statements made inappropriately in manner or time. If ever a woman needs to have both sympathies and antipathies respected, it is when enduring, or when she had just endured the perils of childbirth.

So far as the actual management of labor is concerned, certain conditions liable to cause death demand artificial delivery. If the woman has been upon her side during the expulsion of the child, and then turns upon her back, this change should not be made without compression of the uterus through the abdominal wall during it. Intra-uterine injections must never be used unless the indication is unequivocal, and then preferably by an irrigator rather than by the ordinary syringe; so, too, injections of a solution of one of the iron salts are to be regarded as a last resort, they are rarely if ever required. Abrupt changes of position, and especially sitting up in the early days of the puerperium, even for evacuation of bladder or bowel, are to be avoided; such precaution is especially required if the woman was anemic before her labor, or has had post-partum hemorrhage, or hemorrhage during the labor. Mental and physical rest is nature's instinct and nature's law for the puerpera.—*Med. and Surg. Reporter.*

ON THE VARIETIES OF HEPATIC CIRRHOSIS.

BY GEORGE MUNRO SMITH, L. R. C. P., LONDON, M. R. C. S.

Various attempts have been made from time to time to classify the different kinds of general interstitial hepatitis, either in accordance with the microscopic appearances of the organ after death,or according to the supposed causation of the disease. Ziegler doubts the usefulness of such an undertaking, inasmuch as the types pass one into another. He says: "It is enough for the present to distinguish the hypertrophic conditions from the atrophic, and even then it must be borne in mind that these conditions merely represent different degrees or different stages of what is essentially one and the same process." Dr. Saundby, on the other hand, enumerates seven varieties, namely, alcoholic, cardiac or cyanotic, biliary, syphilitic, tubercular, malarial,and scarlatinal. Charcot and Hanot have, moreover, described a "hypertrophic cirrhosis of diabetes," and Cornil and Ranvier a "fatty hypertrophic cirrhosis." My object in this paper is to suggest a grouping of these morbid processes that may, perhaps, serve for a working classification.

After studying the chief literature on the subject, and comparing various sections of diseased liver, it appears to me that confusion has arisen, in the first place, from confounding the cause with the morbid anatomy; secondly, from describing partial cirrhosis as general; and, thirdly, from considering post-mortem appearances in early and late epochs of the same disease as two distinct varieties.

For example, Charcot described a condition characterized by considerable enlargement of the liver, jaundice, not usually much ascites, and a rapid course. After death was found a general and uniform increase of connective tissue in the organ, with proliferation of the smallest bile ducts and capillaries. To this disease he gave the name "biliary cirrhosis," indicating thereby its mode of origin from blocking of the bile-ducts. This term "biliary" has, however, been transferred from its etiological sense, and made to mean increased formation of the small ducts, a condition not in the last characteristic of this form of cirrhosis, but existing in quite as marked a degree in alcoholic and in cyanotic, as the examination of a few sections will satisfy anyone.

As an example of the second source of error, namely, the confounding together of partial and general fibrosis, two so-called "varieties" may be given, "tubercular" and "hypertrophic diabetic" cirrhosis. Tubercles, of course, frequently form in the liver generally in or near the capsule but occasionally there is found an infiltration in the interior of the gland in the interlobular spaces. If the patient lives long enough, this is sure to lead to patches of sclerosed tissue and new formation, probably, of bile-ducts. Yet this certainly should not be looked upon as a variety of cirrhosis; it is a localized inflammation round the irritating masses of tubercle.

As a rule, no lesion of the liver is found in diabetes unless the subject also happens to be alcoholic: and although Charcot and Hanot have described two cases of enlarged liver with sclerosis in non-alcoholic patient, yet in both these cases distinct tuberculosis existed in the lungs; hence the appearances found in the liver may, perhaps, have been also due to this cause, and the evidence in favor of a distinct variety is not, I think, clear. "Tubercular cirrhosis" may, I think, be struck off from the list, inasmuch as it is partial and not universal, and, for practical purposes, "hypertrophic cirrhosis of diabetes" may also be omitted.

Again, the period in the course of the disease affecting the liver at which the patient dies must always be taken into consideration. So-called "monolobular cirrhosis" becomes indistinguishable microscopically from "multilobular," and an enlarged liver may shrink until it is exceedingly small. Moreover, morbid anatomy cannot be divorced from clinical history, and a description of tissue change alone is sure to lead to confusion. The clas-

sification I suggest is as follows: (*a*) Obstructive cirrhosis due to either (1) some impediment to the flow of bile, "biliary," or (2) to the flow of blood from the liver (as in pulmonary or heart disease), "cyanotic." (*b*) Irritative cirrhosis caused by the irritation (and chronic interstitial inflammation which follows) of some poison brought to the liver by the portal vein or hepatic artery. Under this heading come (1) "alcoholic," (2) "malarial," and (3) "syphilitic," all undoubtedly well-marked conditions. "Scarlatinal cirrhosis,"if such exist, would come in this group, but the evidence of its existence is not very abundant.

The obstructive are always "monolobular," that is, the connective tissue grows uniformly, not necessarily round the lobules, but round the hepatic zone as well. In the irritative forms the connective tissue grows irregularly; some lobules are divided up by septa, whilst others escape altogether. The "syphilitic" is found only in children; acquired syphilis appears never to produce general cirrhosis. The "malarial" is also chiefly seen in children. In "alcoholic" the disease probably begins (Sabourin) both round the portal and hepatic systems of vessels; it is more distinctly multilobular than any other variety.

In the irritative lesions there is often thickening of the small arteries (peri-arteritis). I do not think this is common in the obstructive varieties.

As to the distinction into "hypertrophic" and "atrophic" types, it must be remembered that the liver very readily enlarges; a rich and copious dinner, especially when combined with wine or spirits, may increase its size to one-third greater than the normal. We should, therefore, expect enlargement in the early stages of interstitial hepatitis; but, in the irritaive forms, this subsides much more rapidly than in the obstructive, and the latter terminate more swiftly than the former, otherwise the gland would probably dwindle and atrophy. Both forms may be complicated by adenomatous growths,and, when these are multiple, an otherwise atrophied liver appears to be abnormally large.

I offer the above classification in the hope that it may simplify a subject that has, I believe,hitherto been somewhat in confusion.—*Brit. Med. Jour.*

Purulent Pleurisy in Children.—Dr. Cadet de Gassicourt thinks that it is not always necessary to practice an operation in purulent pleurisy in children, but that they can often be cured by successive punctures and withdrawals of a certain quantity of the fluid.The method is most successful in young children, owing to the fact that the thoracic walls are soft and the integrity of the lungs is such that they allow of easy expansion, and that the pleuritic false membranes are not very strong and do not resist this action. The vitality of the pleural sac is such at six or seven years of age that it will absorb with great ease. There should be an interval of four or five days between the punctures, and the temperature must be watched, as it will indicate the reproduction of the pus. The physical signs also are of importance, except that they are not always certain. The time between the punctures must always be the same, as the operator can then judge as to the increase or decrease of pus. Four or five punctures should be enough, and the quantity taken out each time should diminish.—*Paris Corres. N. Y. Med. Jour.*

Measles or Small-pox. In a lecture reported in the Sacramento *Med. Times*, Professor Oliver said that at the onset of a papular eruption it is often difficult to decide whether the case is one of measles or small-pox. The following method is a certain means of determining by which of these diseases the eruption is produced.

If, upon stretching a portion of the skin, the papule becomes impalpable to the touch the eruption is the result of measles; if, on the contrary, the papule is still felt when the skin is drawn out, the eruption is the result of small-pox. This method of arriving at a diagnosis was discovered by M. Grisolle, and might well be designated as Grisolle's sign. M. Ollivier states that in modiffed small-pox marked or slight fever with suppuration, is always present. In various eruptions, even when these are confluent, the skin of the abdomen is the least affected.—*Columbus Med. Jour.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 7. ST. LOUIS, AUGUST 18, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

SUMMER DIARRHEA OF INFANTS.—ITS DIETETIC TREATMENT.

BY I. N. LOVE, M. D., ST. LOUIS.

Read before the St. Louis Medical Society, July 1, 1888.

Your executive committee has invited me to present to you my views upon the treatment of the summer diarrhea of children from the standpoint of dietetics.

I am profoundly impressed with the importance of this question, and beg leave to suggest to the members of this society that placed by the side of rare and exceptional surgical wonders, infrequent malignant growths (which probably affect one person in a million but which for positive fewness and pronounced aspect are alluring and attractive to the average medical mind) the summer diarrheas of infants and their proper management, insignificant and puerile though the subject may appear from the standpoint of good to the state, society, humanity and the dearest sentiments of the heart and home is possessed of a gravity incomparable.

The unthinking vulgar herd, imbued with a love for the horrible, the taste that would enjoy a hanging or a morgue, are impressed with the grandeur of a surgical procedure but look upon the handling of "baby diseases" as small and contemptible.

Properly imbued with a love for the little ones and a desire to serve them,the physician who appreciates the value of an undeveloped human life with all its possibilities and carefully applies himself to the saving of the same, giving his best thought, and entering heart and soul into the work, does as good service to mankind as he who ambitiously devotes his time and talent to the heroic extirpation of the vital and sacred organs of presidents, kings and emperors, afflicted with incurable diseases.

The dietetic treatment of alimentary disturbances of children,if applied early enough, would in the majority of instances be all sufficient, and in the exceptional ones occasioned by internal congestions dependent upon sudden chilling of the surfaces etc., it forms the most important part. In fact in many cases of this character internal medicine cuts a very meagre figure.

Of course it goes without saying that the ideal food for infants is the healthy mothers milk and if this be impossible then some other healthy mother's milk should be substituted.

But it is often impossible to secure a healthy wet nurse. The supply is not equal to the demand, and often the parent's purse will not permit.

Many things besides the stomach and alimentary canal of the little patient are to be considered. It is very well to say to the mother, in securing a wet-nurse remember you are getting a cow for your child and do not expect too much from her if she be healthy and furnish good milk; but the parent and the physician like Desdemona have a divided duty—a duty to the family as well as the little sufferer. It were better that the babe run the gauntlet of artificial feeding than that the home and the other little ones suffer pollution by association with a "healthy human cow" that is at the same time *a moral leper*. As well admit to the home as food supplier a case of virulent variola, marked syphilis or incipient tuberculosis, or an artificial food reeking and saturated with Vaughn's tyrotoxi-

con as a wet nurse with physique superbly perfect and constitution correct and complete but a character honeycombed with vice.

The majority of the intestinal irritations of children, whether mild or severe, acute or chronic, are largely occasioned by errors of diet, and can in the majority of cases be favorably affected by a proper selection, administration and denial of food. In many instances the withdrawal of an overplus of food is all sufficient. More babies are stuffed to death than starved.

In the majority of instances an acute indigestion mild or severe,whether occasioned or aggravated by heat or cold, improper or excessive feeding,can be relieved by a judicious starving and the prompt removal from the alimentary tract of the offending indigestible matter by prompt purgation.

Mothers should be informed of the fact that when the digestion becomes impaired attention to quantity as well as quality of food is important.

The merest tyro in medicine knows that all babies at all seasons need water oftener than food, and particularly in the hot months should they receive an abundant supply of pure water (previously boiled and cooled)and a diminished quantity of food. I cite a case to which I was called this morning at daylight, as illustration. Eddie C., aged six months, a bottle baby, healthy when born, and well nourished until six days ago a diarrhea developed, which became aggravated as each day passed until during last night the operations became almost continuous, enormously large, thin and watery, accompanied with vomiting. I found the child pinched and shriveled, almost in a state of complete collapse, extremities cold and blue, the weight having been apparently diminished fully one-half in a few hours; the pulse hardly appreciable and yet a nursing bottle with a long rubber tube attached, in the infant's mouth. A few moments after my visit the child vomited a large quantity of the food which had just been taken.

I explained to the mother that it was fortunate that the child had sufficient strength left to reject the food for which its stomach was so ill-fitted—threw away the rubber tube attached to the bottle and prohibited all food, directed the administration of cooling drinks, pure water, external stimulation and warmth and infinitesimal doses of the mild chloride upon the tongue for its sedative effect as well as its anti-fermentative, and gave hypodermically 1-100 gr. of morphine and 1-300 gr. atropia. In a few hours I found the child much better. The important thing done was the removal of all food and free stimulation.

As a substitute for a wet nurse, in my judgment cow's milk in its purity or modified in a manner to prevent the formation of hard and tenacious curds stands first upon the list.

The one great difficulty in the way of using cow's milk as a diet for infants, particularly in cities, is the troublesomeness of securing it fresh from the cow. We are all familiar with the fact that no article of diet so promptly absorbs the impurities around it as milk, and so readily underges fermentative and putrefactive changes.

The investigations of Victor C. Vaughn of Ann Arbor, Michigan, in establishing an organic poison or ptomaine the product of fermented milk as being the cause of many of the bowel troubles of children was an important step forward in the management of these troubles. Recognizing the presence in the alimentary canal of this chemical poison, the necessity for aiding its elimination and antidoting it was clear; and as a preventive of its development, it soon become apparent that severe sterilization of the milk, the complete antisepsis, cleanliness, was of prime importance.

At the late meeting of the American Medical Association at Cincinnati, May 5, 1888, in the pediatric section, an entire day was given to the discussion of infant feeding. Many of the ablest workers in the department of diseases of children in America and England contributed to the interest of the occasion.

Dr. G. Wheeler Jones, of Danville, Ill., one of the ablest writers and clearest thinkers of his state, gave evidence that to him artificial feeding had no terrors. He had no hesi-

tation in removing a child from the breast and at once putting it to the bottle. His favorite food was cow's milk, the cow well fed and cared for, the attendant impressed with the importance of the fact that cleanliness was godliness in this connection. As an evidence of the fact that the sterilization of the milk was of the primest importance,he stated that he had never failed to find a child do well when taken to the barn-yard with his bottle and the lacteal fluid milked directly from the cow into the same and promptly taken by the child. This testimony and experience is valuable where the conditions will permit of its appliciation, but in the majority of cases under the care of doctors in large cities the idea is not feasible, and yet it emphasizes an important point to us, the value of sterilizing the milk.

In acute disturbances the withdrawal of all milk diet is frequently necessary. Raw meat finely chopped has been strongly recommended by some, and I have frequently found in years past, an advantage in it, but the danger of tape-worm is pronounced.

The accomplishments of the chemist in his laboratory aided and abetted by capital in these latter years has furnished us with many foods as substitutes for milk that are of great value, and I feel that the profession and the public are under great obligation to them for their work.

What could the profound, patient and poverty-stricken physiologist do in the direction of developing food possibilities without the aid of money.

While advising the severest scrutiny upon the part of the medical adviser in the application of these commercial foods I would also advise religious regard for the interests involved and the importance of careful conscientious personal investigation upon the part of the delver in this field of work.

Professional prejudice has no right to place itself in the way of a patient's good, whether it be a question of physic or pabulum.

The proof of the pudding is the eating of it, and if my child be saved by a food presented to me for purchase by a commercial firm or an honest son of toil from the rural districts I care not.

The laborer in medicine and science can no more dissever himself from capital, if he would accomplish his greatest good, than the horny handed worker of factory or farmer. Whether then it be the field of dietitics or pharmacy, we should acknowledge our obligation, cease to indulge in the sentimental rot of objecting to food or physic because some proprietor's pocket is the gainer.

In the selection of a diet for infants we must meet two demands, a temporary and a permanent one.

In acute indigestions the absolute withdrawal of all food for a time is frequently demanded, and to tide over present dangers a substitute which is well received, easily digested, non-irritating unfermentative is indicated.

In these conditions it often becomes necessary to withhold the cow's milk, and where in years gone by I gave raw meat, I now give Bovinine, (a peptonized fluid extract of raw beef combined with pure egg albumen) in doses ranging from ten drops to a teaspoonful properly diluted every two hours.

If the requirements demand, I sometimes add a few drops of cognac or blackberry brandy.

Occasionally the use of pure egg albumen in water (white of an egg to half-pint of water) gently mingled without beating to a froth will serve a good purpose.

For temporary use in acute or even chronic disturbances, I have found condensed milk more or less diluted as the requirements demand serve me well, but only for temporary use would I recommend condensed milk, as, if used as a long continued food, though it may agree with and apparently well nourish the child it is deceptive. It fattens but does not build up muscle, bone and nerve. After ten year's observation of and preference for condensed milk in the majority of cases, I eight years ago came to the conclusion that children long fed on condensed milk were fat but not solid. Adipose abounded, but at a

later period the little ones became flabby-muscled, weak-boned, neurotic and prone to gastro-intestinal indigestions, and when attacked by the exanthematous fevers or other diseases of childhood, were lacking in power of resistance or recuperative energy.

As a part of the symposium of infant feeding in the pediatric section at the late meeting of the American Medical Association previously referred to the report of a special committee upon this subject formed an important part in which Dr. Eustace Smith, of London says:

"No artificial food will efficiently nourish an infant unless cow's milk be added; for all preserved foods want the living antiscorbutic principle which is only to be found in fresh foods. In other respects, many of them,such as the desiccated milk foods, contain in themselves; as far as I know, all the elements of nutrition."

If trouble arises during our care of an infant and indigestion ensue, I most decidedly commend partially predigested milk using the Fairchild peptongenic milk powder, in spite of the fact that Jacobi, Forchheimer and some others pronounce against it. I have had most valuable results from its use. I do not believe in the constant and habitual use of completely predigested foods. I indorse fully the position of one of our strongest, longest and best workers in the dietetic field. Dr. J. Lewis Smith, who says:

"I think that it is not best to feed infants habitually with fully digested food, for the stomach of the baby should be allowed to accomplish what it can without being overtaxed. Its normal functional activity produces a healthier state, and conduces to a better condition of the infant in my opinion, than when there is no functional activity except that of assimilation, as is the case when fully digested food like glucose is given. The same rule applies, I think, to the digestive organs as to the muscles. If we insist on quietude of the muscles, they atrophy and become feeble. If we fully predigest the infant's food, it seems to me probable that glands or follicles which furnish the digestive ferments, lacking the needed stimulation, are likely to suffer deterioration in their functions and furnish ferments of poorer quality and of less quantity, than when the food is of a nature that requires some digestion."

But if the digestive organs be crippled, I am sure by long experience that I am justified in endorsing the furnishing of food that is ready for immediate assimmilation. I have found in many cases where the artificial digestion was unsatisfactory that if I gave the latter my personal attention, and demonstrated to the mother the process, I had no further trouble. While I am willing to admit that many mothers can not immediately grasp the difficulties and overcome them, yet I do not agree with Dr. Woodbury, of Philadelphia, who says:

"I consider it impracticable. The women intelligent enough to conduct the process properly are engaged in teaching in some college, and if married, rarely if ever, have children."

I am disposed to believe that the majority of mothers have sufficient interest and intelligence to carry out the details of artificial digestion. The point I make is that physicians often do not take the trouble to sufficiently elaborate their instructions or go into details in giving directions. An explicit explanation and practical demonstration will often accomplish much whether we order food or physic.

Each case is a law into itself, and we must study it individually and recognize the fact that as in dyspepsia of adults "what is one's food is another's poison."

There can be given to no one infant or adult a stereotyped food.

The condition of the food tract must be studied for each case. We must not forget that the food which agrees with the babe this week or month may for certain reasons disagree the following.

Babies, the same as older people, must have a varied diet. We must not and cannot safely ignore the palate of either.

Farinaceous foods are injurious to young babies for obvious reasons.

It has been found that by adding malt in certain proportions, the same change is exerted in the starch artificially as is produced naturally by the salivary and pancreatic secretions during the process of digestion.

The employment of malt for this purpose was first suggested by Mialhe in a paper read before the French Academy in 1845, and the suggestion was put into practice by Liebig 15 years later.

Liebig's food for infants contains wheat flour, malt, and a little carbonate of potash, and has gained a well deserved celebrity as a food for babies during the first few months of life.

A form of malted food which is a modification of Liebig's "Food for Infants" and has a very decided advantage, in that it is much more palatable is "Mellin's Food for Infants," Mellin,the deviser of this food, was an associated chemist with Mialche the author of the paper read before the French Academy in 1845, and is yet one of the recognized chemists of Europe. The "Mellin's" food is highly commended in certain conditions by Fothergill, Eustace Smith, Louis Starr and many of the highest authorities on dietetics. I find it valuable to give it simply in plain water now and then, but I frequently order it to be added to milk diluted with water one part to eight, a teaspoonful to a half pint for the purpose of breaking the curd and adding an element of nutrition and aiding digestion.

There can be no doubt that there are some superfluous "Infant foods" in the market, but in the main I think we may consider ourselves fortunate that commercial firms have so enlarged the *menu* from which to choose a food for the child at various times under varying conditions. Whether selecting a food or a drug in the disturbances of childhood or later life, a careful discrimination must be exercised.

I feel justified in epitomizing as follows:

1. In the dietetic treatment of the summer diarrhea of infants, the almost complete withdrawal of food temporarily is sometimes desirable.

2. While a cow's milk diet in its purity or properly modified is in the majority of cases to be preferred as a substitute for a mother's or wet nurse's milk, there are frequently conditions where all forms of milk are to be withdrawn and raw beef extracts or diluted albumen substituted along with broths,beef teas, etc.

3. As a temporary expedient condensed milk is valuable. but it is objectionable as a permanent food.

4. The addition of malted foods containing proper proportions of carbo-hydrates to diluted milk (such as Mellin's food which I have found of great value) is frequently most desirable.

5. Artificial digestion is a great advance, in the direction of the solution of the problem of artificial feeding. If the digestive apparatus be in perfect condition, predigestion is uncalled for, but when it is crippled its burdens may be very materially and happily lightened by the careful and judicious use of Fairchild's peptonizing ferments.

6. No stereotyped food which is applicable to all infants, no matter what the age or condition, has yet been devised,and in the nature of things is not likely to be.

NOTES ON BACTERIAL PATHOLOGY.

BY H. C. FAIRBROTHER, M. D.

I feel like asking pardon of the readers of the REVIEW for introducing a subject on which so much has already been said, and better said than I can say it. But I am firmly convinced that the germ theory holds now such a strong position in the domain of pathology as to justify its careful study. It is no longer a new theory. For nearly two decades it has been conspicuous before the profession, and it now has more adherents than ever before. The popularity of its opposition is certainly on the wane, and, I think there are few surgeons to day, whose modes of treatment are not modified if not altogether governed by this theory. The latest effusion of opposition that has come under my obser-

vation, is an article in the Philadelphia *Medical Register*, by Alfred S. Gubb, M. D., London,England. But,as I have not before heard of Dr. Gubb, I take this to be another case of "a prophet is not without honor except in his own country."

I may be excused for mentioning that my relation as local surgeon for a number of railroads and the St. Louis Bridge Co., puts into my hands a considerable amount of surgery. It is true it is mostly of the simpler kind,such as crushed hands, fingers, etc., but is of a kind which well illustrates the influence of antiseptic treatment; and by "antiseptic" treatment, I mean "antigerm" treatment. In railroad surgery it is a rare thing to obtain flaps in the minor amputations. The finger is crushed and torn and ragged, and to go far enough back to get good flaps would be to sacrifice more of the member than necessary.

I think the best surgery is not to strive for flaps but to trim off such soft parts as are absolutely worthless, and then cut the bone a little above the plane of the soft parts remaining. For such a stump to heal requires a greater length of time, but the loss of time is more than repaid by the length of the finfier. Such an operation also leaves the part more exposed to septic influence, and more liable to inflammatory action. Therefore, this is well adopted to illustrate antiseptic practice.

It sometimes occurs that an injury takes place some distance from the city, and a little time, maybe one or two days, has passed before regular dressing is applied. The finger, torn and maybe fractured, has probbly without cleansing, been wrapped up in "waste." Nothing is more common, in such cases, than to have cellulitis, and not only of the finger, but the hand also. But where early and proper dressing is applied to such an injury, cellulitis is almost unknown.

There is a point in connection with the pathology of injuries of this kind which deserves notice here, although it may seem to conflict with the germ theory of cellulitis. If a patient, with a recently amputated finger, is exposed, for some time, to severe cold, and especially if he is exposed to severe cold and wet together, there is great danger of inflammation. I believe about one half of the cases thus exposed will suffer this trouble. Now, that the wetting and chilling of the body have something to do with this effect no one can for a moment dispute. On the other hand, it is maintained that no injury is absolutely free from micro-organisms, but that the system, especially with the aid of germicide applications, is under ordinary circumstances, able to carry on the battle against them successfully. If, however, the vital forces are reduced by cold, almost to the point of death, there is no such natural resistance, and the battle is lost. And numberless experiments and investigations have sustained this position.

Virchow, in his excellent work on Cellular Pathology, in order to simplify his subject, and lead by easy stages from the simple to the more complex modes of cellular development, begins by a description of vegetable cells. These cells are larger in size, more rapid in growth and less complicated in arrangement, and their study is comparatively easy. It is possible that the pursuit of a similar course in studying the effects of micro-organisms upon the animal economy, may also aid in the simplification of this difficult subject.

Few there must be, who have not observed some of the species of that very common vegetable parasite known as the aphis. It is the pest of the farmer, the destroyer of his cabbage and the blight of many a fine apple tree. None except the larger species are discernible to the naked eye. Those most frequently met with appear in tufts or bundles forming a gray wool-like substance, situated about abrasions on young trees, or upon the under surface of the leaves of roses. They are not generally discovered until their blighting effects upon the shrub appear. And even at the present time in many sections of this country it is not known that this peculiar disease, which blights and withers so many and valuable young trees and shrubs is

caused by a parasite. And when these wooly excresences are discovered, they are thought to be some sort of unhealthy exudation, or one of the signs of a diseased tree. No attempt is made at their destruction, but all treatment is directed toward the cure and nourishment of the tree. And it is only in recent years that the attention of farmers and gardeners has been directed to this subject,and remedies applied to prevent the ravages caused by these parasites. State entomology has done much toward the diffusion of this useful knowledge.

Passing from the micro-organisms of the vegetable kingdom to those more nearly allied to the animal world, we have the large class of animalculæ found about the dark and damp shelves of the pantry.

Let a cooked potato be surrounded by suitable heat and moisture,and within a few days there will develop, at some point upon its surface, a small tuft of grey or brownish substance. This is usually spoken of as "mould," but upon examination it is found to consist of an accumulation of a vast number of micro-organisms. These may be transferred from one object to another or placed in certain fluids favorable to their existence, and their multiplication will go on with wonderful rapidity.

Take a perfectly sound orange, make a slight abrasion upon its surface, and place it in similar surroundings, and, in a short time, a group of these parasites will be accumulated at the point of abrasion. Now it will be further observed that the decay of the orange begins at this point, spreading laterally and extending towards the interior; and, just to the extent of the advance of the microphyte, will the process of decay go on. Indeed this process of decay everywhere, not only in the vegetable, but the animal kingdom is carried on by these minute organisms. Not only is the rotting of an orange or an apple caused in this way but also those putrefactive, processes following death in the animal world. This great army of bacteria stands upon the shores of death transforming material into elements suitable for life again. It is true their work is pathological, but often not an unfriendly one. It is not only better for the living that the dead return to inorganic elements, but it is from these elements alone that other life may be renewed.

What concerns us most, however, is the action of bacteria upon the living. We have seen how a group of these minute beings may take up their abode upon the wounded surface of an orange and from that point the process of decay will immediately set in.

Now it is not difficult to pass from this to their action upon the animal frame. Let the thumb of a sewing girl for example, be pricked with a needle. After the lapse of a few days, it may be, a feeling of pain well be experienced, cellulitis will follow, and we have what is commonly known as whitlow. Every tissue from the surface to the bone is involved in this destructive inflammation, and sometimes the bone itself is attacked, and many days of severe pain are suffered. A free incision may be made,and while it gives relief, it often fails to cure. The tissues become a pulpy mass of unhealthy granulations; poultices are used, and various ointments applied to the surface, but no relief is given. Now let any of the stronger germicide applications be made to the entire extent of the diseased tissue; let a copper crayon be pressed down freely upon the bone, and swept around into all the corners where the process of decay is going on, and let the opening which is caused by this, be filled with iodoform and a dressing applied. In the majority of cases, from that hour, the pathological process stops and the physiological one begins. This is the crowning beauty of bacterial pathology—it has direct relations to treatment.

THE Vienna correspondet writes to the *N. O. Med.and Surg Jour.*,that Professor Nothnagel has shown the Imp. Royal Society, a case of superior hemianopsia. This is a very rare affection, only a few cases are on record. Lateral hemianopsia is quite common. The lesion producing the trouble is in the brain. In the case reported above the ophthalmoscope revealed nothing abnormal.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 500 N. Jefferson Ave.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, AUGUST 18, 1888.

THERE ARE TWO SIDES TO THE QUESTION.

At the present time, when so many supposed facts are being proven as only theories, it becomes us to consider the evidence both pro and con bearing upon assertions that we make. In an address (*Atlanta Med. and Surg. Jour.*) delivered before the Texas State Medical Society, Dr. T. H. Nott gives as his opinion that no subject should more seriously engage the attention of the profession at this time than that of making specialists of embryo physicians.

In the address referred to the speaker recommended that a clause be inserted in the article regulating the practice of medicine which shall forbid any person to practice a specialty in the State of Texas who has not done a general practice for at least ten years.

A specialist is unworthy of being called a specialist who has no knowledge of general medicine, has been said so often as to be altogether trite. The question arises as to how much knowledge of general medicine is essential to a successful specialist. Dr. Nott says: "In the good old times gone by, a specialist was 'a physician and something more.' A physician who having grown ripe in years, in knowledge and in experience; who, having learned all that his co-laborers and general practical experience could teach him, and not yet being satisfied, singles out that branch for which he has proved himself best fitted and in which he has been most successful, and by concentrating his energies, backed by a ripe experience, he pushes forward into paths before untrodden and opens up new fields of labor as far in advance of the general practitioner as the electric light is of common gas."

He perhaps has not heard, or at least he does not seem to believe that "it is a hard matter to teach old dogs new tricks."

My observation has been that it is not so much a matter of time as to the amount of knowledge that a medical man accumulates, as it is of opportunity and the ability to improve the opportunity. Give a bright graduate all the practice that he can do, and he will know more of medicine in two years than another who has but little to do will learn in ten years.

I say, as does every one else almost without exception, that it is positively necessary that a specialist must have a knowledge of general medicine, but where is the limit to be? If we require a knowledge of every thing that is known in general medicine, then we will have no specialists, for they will die of old age before they get that far along.

Dr. Nott further says:

"As to the admitted ignorance of the general practitioner concerning special diseases, it is very much like the assumed knowledge of the young specialist, viz., more imaginary than real, and while it would require years for the young specialist to acquire that general experience which is indispensable to a man who proposes to make a specialist of himself, it would require but a few months for the man who has already toiled for his experience, and who knows for what branch he is best fitted, to brush off his supposed ignorance and acquire all that is known on any special branch. A few months' private course in a special hospital under an old specialist will make a better dentist, gynecologist or laryngologist out of an experienced general practitioner thau the man who enters the profession as a specialist can make in a lifetime.

Again, we are told by the oculists and ovariotomists that none should dare attempt an operation for the removal of cataract or ovarian tumor except the specialists of large experience."

Perhaps ophthalmology is somewhat different from the other specialties, but I am inclined to think that the actual experience necessary for a physician to become proficient in any one of them is much greater than Dr. Nott supposes it to be.

A personal friend of mine practiced general medicine for twelve years (making money out of his practice) and then decided to prepare himself to practice ophthalmology. He supposed he could learn all about the eye in a few months. It took him about three years. Another friend practiced fifteen years, and his experience was like the first. After a number of years of general practice my friends above referred to said: "When you have studied ophthalmology six months you will find that you know but little about it, and you will conclude to devote two or three years more to it before setting up as a specialist." It is needless to say I found they were right. During this time we were all in active hospital practice, having all that we could possibly do.

I do not think the general practitioner is in danger from "born specialists." He is not compelled to send his patients to some one else. If he cannot find some one who can do more for the patient than he can, it is his duty to treat them himself so long as the patient wishes his services. However, every practitioner serves his own interest when he refers patients whom he is unprepared to treat to competent specialists.

Treatment for Hemorrhoids.

Dr. Shuford, of Tyler, Texas, has written a brochure on the treatment of internal hemorrhoids with the injection of carbolic acid, which was mentioned in a previous number of the Review. He says that he thinks this method deserves more encouragement and attention from the medical profession than it receives. The doctor does not seem to be aware that this method has been tried and found wanting. He claims that it is "comparatively painless." This has not been the experience of others who have used the treatment. I would refer the doctor to the statistics collected by Andrews, of Chicago, in which he reports 3304 cases operated on by this method. In this number there were 13 deaths; embolism of liver, 8; sudden and dangerous prostration, 1; abscess of liver, 1; dangerous hemorrhage, 10; permanent impotence, 1; stricture of rectum, 2; violent pains, 83; carbolic acid poisoning, 1; failure to cure, 19; severe inflammation, 10; sloughing and other accidents, 35.

Now here are 182 reported accidents in 3304 cases operated on, which is certainly a very large per cent, and in comparing it with other methods, such as ligature, in which Allingham reports 4013 cases with only 6 deaths, and more recently 1600 cases without a death, we do not think any one justified in recommending the operation of injection of carbolic acid for the cure of internal hemorrhoids.

Dr. Kelsey, of New York, says in speaking of the operation, that we have pain, ulceration, marginal abscess, fistula, impossibility of giving any definite prognosis as to length of treatment, and the fact that treatment may not result in radical cure. Dr. Mathews, of Louisville, has written a pamphlet on injection of hemorrhoids with carbolic acid, in which he says that the injection of acid into a pile is painful and inefficient, and that death is to be feared from peritonitis, embolism and pyemia. Possibly the doctor may not have read these statistics as they would likely have modified his opinion of the operation.

Last, but probably not least, is the fact that the carbolic acid injection does not always effect a permanent cure of the hemorrhoids. I have had under my care two patients in the last three months who had been treated by this method, and each one of them stated that he felt far worse at the time that I saw him than he did before the carbolic treatment was used.

J. R. Lemen.

Morphine Habit.

Dr. J. B. Mattison, of Brooklyn, N. Y., has made, perhaps, a more extensive investigation

and closer study of the effects of various narcotics in producing "habitues" than any one else in this country. As an evidence of his belief in the efficacy of scientific treatment of such cases, he takes into his home and under his immediate professional care the limited number of six of opium habitues, chloral and cocaine cases.

Dr. Mattison is now translating the third and last edition of Erlenmeyer's "The Morphia Disease and its Treatment." The notes and comments of the translator will add much to the value of the work, which is to be brought out this coming autumn.

Meniere's Disease Relieved by Excision of the Membrana Tympani and Malleus.

Dr. C. H. Burnett read a paper before the American Otological Society in which he reported a case which had been treated for six years for chronic catarrh of the naso pharynx and middle ear, which was accompanied by deafness, ringing and a sense of fulness in the ear. At the expiration of this time she was not improved, and marked aural vertigo was superadded to her other discomforts. Dr. Burnett placed the patient under ether, and removed the drum membrane, and the mal leus, which gave immediate and entire relief to all the symptoms except the deafness which remained practically unimpaired. The operation was performed last May, and the good result has obtained to the present time.

Dr. Sexton, of New York, said he had performed the operation more than fifty times, with decided benefit in a number of cases of tinnitus and other subjective symptoms.

Action of Digestive Fluids on Oil.

Bearing upon this much disputed question, Dr. H.W. Wiley of Washington, (*Med. News*) says that a physician of his city administered a pint of cotton-seed oil to a patient, which was followed by dejections of a large number of moderately hard ovoid bodies, which the patient supposed were gall-stones.

Dr. Wiley examined the bodies and found them to be a mixture of true soap and free fatty acids, easily soluble in alcohol, yielding fatty acids insoluble in water on treatment with an acid. After saturation with hydro-chloric acid the chlorides of the alkalies were separated from the fatty acids by filtration, evaporated to dryness, ignited to low redness to drive off any ammonia and to destroy organic matter; the residual chlorides were dissolved in water, filtered through a small filter, evaporated nearly to dryness, dissolved in alcohol and treated with platinic chloride. A distinct precipitate of potassio-platinic chloride was formed, showing a trace of potassium. The chief part of the alkali, however, was soda, with, possibly, some calcium. This is an interesting case, showing the com plete saponification or decomposition of a large quantity of oil by the pancreatic juice and bile, perhaps with the aid of a fat-splitting ferment, and the passage of the greater quantity of soap and acids thereby formed unabsorbed through the alimentary canal.

This analysis seems conclusive proof that the large numbers of gall-stones reported as having been passed after the administration of large doses of oil, were in reality soap. But the clinical fact remains that the administration of such doses is one of the best means at our command for relieving patients of hepatic colic.

Gunshot Wound of the Heart.

Dr. Thomas G. Morton reported (*Med. Times*) a case in which a pistol ball entered the chest wall an inch to the inner side of the left nipple and slightly above its level.

The patient died about five hours later. At the autopsy it was found that the ball had passed through the right ventricle of the heart, and being deflected in its course passed through the left lobe of the liver, and lodged in the gall-bladder where it was found. Hemorrhage into the pericardium was not great owing to the valve-like nature of the opening into the ventricle. Patient suffered from profound shock, and Dr. Morton attributes

death of the patient rather to the wound of the liver than that of the heart.

Dr. Morton also mentions a case in which a boy was stabbed, the left ventricle being wounded. The doctor passed his finger into the pericardium and distinctly felt the wound of the heart.

While it is a fact that wounds of the heart are not necessarily fatal, inasmuch as a number of such cases have recovered, there are cases on record in which the wound of a needle was sufficient to produce death. There are few, I suspect, who would be willing to adopt the procedure recommended by a French surgeon—to draw blood from the right auricle by means of a needle, to relieve venous congestion.

Amaurosis and Strabismus from Intestinal Worms.

Many good observers have tried long and fruitlessly to discover whether strabismus, in the majority of cases, was due to a lack of vision in the squinting eye, or that the lowered vision was due to the squint—that is, from non-use of the eye. The difficulty that arises in such an investigation is that no examination is made of the vision before the strabismus occurs, as there is no occasion to consult an ophthalmologist previous to that time. Then, too, the squinting usually occurs at so early an age that no test of the vision can be made.

Mr. Jabez Hogg reports a case in the *Brit. Med. Jour.* in which a child, three years of age was "the intermediary hostess of three kinds of entozoa," thread worm, tapeworm, and round worm. When examined by Mr. Hogg, the child was thin in body, weak in her legs and walked only by passing from one chair to another. This, the mother thought, was due to a loss of vision which had persisted for a year. There was a persistent squint, which the attending surgeon supposed was due to intestinal worms. Anthelmintics confirmed the diagnosis as given above. Two months later the child was recovering its sight, and the strabismus had entirely passed away.

No ophthalmoscopic examination could be made while the amaurosis existed, as the eyes of the child were rolled under the upper lids when a bright light was thrown on them.

Strabismus, occurring during an acute illness is significant of reflex irritation, or of disease of the brain or its coverings. The intestinal canal is the chief site of reflex irritation.

The report of such cases as the one by Mr. Hogg confirms the opinion that is universal among medical men, namely, that oculists should have a knowledge of general medicine.

Important Law Decisions.

The acts of an agent in extraordinary emergencies, such as summoning a physician other than the one for whom the agent was sent, will bind his principal.—Bartlett *vs.* Speckman (Mo.) 14 *Western Reporter*, 725.

51. Constitutional Law—Practicing Medicine.—The act enacting that no one shall practice medicine without being a graduate, unless he has practiced for five years in Michigan, when the act takes effect, is constitutional.—*People vs. Phippin*, S. C. Mich., April 27, 1888; 37 N. W. Rep. 888.

152. Insanity—Committee.—Where, upon an i nquisition of lunacy, it is found that the party is a lunatic, and that certain named persons are his wife and children, and the committee proceeds to apply the income of the estate to the support of those persons; held, that the committee is entitled to credit for such expenditures, although it is proved that the alleged wife was the mistress of the lunatic and the children illegitimate—*Appeal of Halsey*, S. C. Penn., April 30, 1888; 13 Atl. Rep. 934.

Errata.—In the article on menorrhagia, by Dr. Jones, published in the Review Aug. 4, page 120, the "Comp. Iodine Mixture" should read: Iodide potass., chlorate potass.

aaʒjss, carbolic acid, gtt. x, glycerine and tinct. iodine aaʒjss, water ℥j. M.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

To America belongs the credit of having given to the world the sewing machine, the telegraph, the telephone and the type writer. A quartette which is advancing civilization more rapidly than the most pronounced optimist could have hoped for a century ago. What wonders they are! Not the least in importance is the type writer. It is probably coming into use from one side of the world to the other, and at the present rate of progress writing with a pen will soon be one of the lost arts.

Charles Reade, the great novelist is right when he says: "I advise parents to have their boys and girls taught short-hand writing and type writing. The short hand writer who can type write his notes will be safer from poverty than a great Freekscholar."

If the Public School Boards would prune away many of their infantile kindergarten features and superfluous higher branches, and engraft upon their courses of study the sewing machine, the type writer, and stenography, would it not be better for the coming bread-winners of the world?

* * *

The manner in which commercial food preservatives affect the digestibility of the foods is one worthy of serious consideration by the profession and the public.

Drs. Henry Leffmann and Wm. Beam have recently given very earnest attention to this subject, and the result of their laboratorical experimentations and observation justifies them in the conclusion that the indiscriminate use of salycilic acid, saccharin, sodium, acid sulphite, beta-naphthol in the preservation of food is to be regarded as objectionable, and a proper subject of sanitary supervision. Their use is scarcely allowable under any circumstances, and certainly only when the nature of the preservative and the amount is distinctly stated. These remarks apply more particularly to salicylic acid, saccharin and beta-naphthol, but the use of boric acid and sodium acid sulphite may be brought also under the same restrictions,because their actions on the animal functions are not yet thoroughly investigated.

It is to be hoped that these gentlemen will give further consideration to this all-important matter and distribute to the profession their further conclusions.

* * *

From all points come evidences of a large attendance of the profession of all our valley states upon the meeting of the Mississippi Valley Medical Association in St. Louis, Sept. 11, '88. This is the most delightful season of the year for visiting this city, and the time is favorable, as it is the breathing spell for the busy doctor between the busy seasons of the summer and fall. They who come together at this time are in the best shape for resting, comparing notes, exchanging ideas and experiences, and return to their patients rejuvenated, and having given evidence of being progressive men, anxious to keep step to the music of the advancing column of our noble profession. Let every doctor who can subscribe to our national code of ethics, who is a legal practitioner, come and join the Association, bring his family and he will find ample means for their pleasure during the Exposition season. Railroad rates will be low. Come one, come all.

* * *

Dr. Jno. A. Larrabee, of Louisville, one of the most energetic, ablest and best workers in pediatrics, says that the best tonic we have for children is fresh air, Fowler's solution and vinum ferri—the F. F. V. of infantile medication, so to speak.

* * *

The query may well be presented should the State commit a crime which is contrary to the moral law any more than the individual? Is not wrong wrong, no matter where found?

Somewhere it has been written, "Thou shalt not kill!"

It is expected that Dr. Nicholas Senn, of Milwaukee, Wis., who is now taking a position of world-wide fame, will attend the September meeting of the Mississippi Valley Medical Association and take part in the discussion upon abdominal surgery.

CORRESPONDENCE.

CHOLERA INFANTUM.

MADISON, INDIANA, AUG. 3, 1888.

EDITOR REVIEW.—In the discussion on cholera infantum by the St. Louis Medical Society, a statement was made by Dr. Martin in answer to a question from Dr. Hughes, thus: "We know that children raised in the country do not have the disease." I have been in active practice for considerably over two decades, and the greater part of the time in the country, and my experience is that cholera infantum is quite prevalent in country districts every summer. In fact I cannot recall a summer but what I have met with several cases identical with the ones met with in the cities, and my experience is the same as several of my physician friends who practice in the country.

The proceedings of the St. Louis Medical Society are read with interest and profit, but members, sometimes I think, get a little off on some subjects they discuss.

J. TRUEMAN DAVIS, M.D.

HARTFORD, CONN., August 10, 1888.

EDITOR REVIEW.—The communication from Cheves Bevill in your issue of August 4, '88., "Vomiting in Pregnancy a Sign of the Sex of the Child," reminds me of the worst case of vomiting in pregnancy that I have experienced.

A primipara had uncontrollable vomiting for the first two months, the means used to remedy that condition comprising nearly the whole range of drugs that are supposed to influence that condition. The last prescription used was a large dose of bromide of potash and chloral (aaʒss.) given by the rectum.

This patient was obliged to remain most of the time in a recumbent position; as soon as the head was raised nausea and vomiting being excited, and only occasionally could any nourishment be retained by the stomach. The remaining seven months of gestation were uneventful and a male child was delivered at term.

GIDEON C. SEGUR, M.D.

DETROIT, MICH., August 7, 1888.

EDITOR REVIEW.—I have just noticed in your issue of August 4, a communication from Dr. Cheves Bevill, of Winfield, Arkansas, that he prognoses the sex of a child from the presence or absence of the "morning sickness," in the prospective mother ——if it be presest,the "new-comer" is to be a girl; if absent a boy.

Now, Mr. Editor, that may be all right for the Arkansas women and climate, but way up here in Michigan it is not a safe rule to go by, for the past week I confined two primiparæ; one of these was delivered of a 9½ pound girl, and the other of a boy,and *neither mother* had the customary "morning sickness."

C. HENRI LEONARD.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

PARTIAL PROGRAMME, SEPT. 11, 1888.

Are Immediate Amputations Justifiable? H. H. Middlekamp, M.D., Warrenton, Mo.

A Clinical Study of Multiple Neuritis, Frank R. Fry, M.D., St. Louis, Mo.

Committee for the Discussion of the Problem of Infant Feeding: John A. Larrabee, M. D., Louisville, Ky.; E. A. Wood, M.D., Pittsburgh, Pa.; J. S. B. Alleyne, M.D., St. Louis, Mo.; Frank Woodbury, M.D., Philadelphia, Pa.; I. N. Love, M.D., St. Louis, Mo.; Chas. Warrington Earle, M.D., Chicago, Ill.; R. C. Moore, M.D., Omaha, Neb.

Chronic Pharyngitis, Wm. Townsend Porter, M.D., St. Louis, Mo.

Laparotomy for Intestinal Obstruction, Arch. Dixon, M.D., Henderson, Ky.

Diphtheria, J. R. Early, M.D., Ridgeway, Pa.

Discussion on Some Obscure Diseases of the Rectum, J. M. Mathews, M.D., Louisville, Ky.

Discussion on Abdominal Surgery, J. W. Cokenower, M.D., Des Moines, Iowa.

Perforating Ulcer of the Duodenum, J. M. Emmert, M.D., Atlantic, Iowa.

Disturbances of the Vaso-Motor System, W. A. Jones, M.D., Minneapolis, Minn.

The Treatment of Melancholia, J. S. Gray, M.D., Chicago, Ill.

SELECTIONS.

THE ETIOLOGY AND PATHOLOGY OF INCREASED BODILY HEAT IN RELATION TO DISEASE AND THE USE OF ANTIPYRETICS.

BY WILLIAM HENRY PORTER, M. D.
Professor of Clinical Medicine and Pathology in the New York Post-Graduate Medical School and Hospital.

We find a large number of articles in our medical journals devoted to the subjects of increased body-heat as recorded by the clinical thermometer. We likewise find a still larger number of articles lauding the efficiency of the various new antipyretics as they are announced. At the same time, there is a conspicuous absence of articles devoted to the study of the etiological factors which excite the increased bodily temperature.

The first question naturally suggested is, what is the true conception of increased bodily heat? Does it simply mean that the body is too hot, as recorded by the clinical thermometer, and that this increased heat must be subdued or death will result? Or is this increased temperature to be looked upon as a single symptom only, which indicates a grave disturbance of the chemico physiological processes of the animal economy,a continued disturbance of which process must necessarily be followed by a continued fever, or a continued rise in the temperature?

It appears to me that too much stress has been laid upon the high temperature *per se*, as recorded by the thermometer, and far too little attention devoted to the physiological disturbances.

The numerous medical books and standard works on medicine give very little satisfactory information in regard to the etiology and pathology of fever, for fever by them is only treated of in connection with the various diseases in which it exists as a symptom, and even then the discussion of the subject is purely from a clinical standpoint. Everyone undoubtedly appreciates the fact that the various causes of increased bodily heat cannot be accurately followed step by step from cause to effect. But a careful study of the laws which govern the normal production, with the pathological changes that occur in all those diseases in which an abnormally high temperature has been a characteristic symptom, tends to throw much light upon this obscure subject; a condition which for a long time has been treated empirically and with little or no thought of the disturbed chemico-physiological and pathological laws governing the same.

Physiologically speaking, animal heat is produced by the motor forces or the kinetic energy being converted into heat; that is to say, the molecular friction of the microscopic elements of the body. The largest amount of heat, however, is probably produced by the transformation of the chemical elements of the food, which are endowed with a large amount of potential energy that is given off in the form of heat as they are being converted into more stable products having little or no energy. At the same time the physiological economy is so constructed that while it is producing heat it can both store up and excrete heat. These phenomena are chiefly effected by the condition of the skin and other excretory organs, and in this way the body temperature is normally maintained at a mean standard, namely, that of 37.6° C., or 98.5° F. Further than this, some have claimed that there exists a special cerebral heat-center, which has for its function the property of maintaining this uniform body-heat. But as yet it has not been located with

any degree of positiveness, and so long as we have no accurate knowledge of its location, or of any drugs acting upon it, no practical value can be derived from its existence. That the chemico-physiological production, storage, and excretion of heat are without any connection with the nervous mechanism is impossible to maintain, but what the working of that connection is remains an unsolved problem.

From what has already been said it appears that under all circumstances the increased body-heat above the normal standard can be attributed to one of two causes:

First, to an increase in the molecular friction of the body without disturbance of the chemico physiological processes, and one in which the body-nutrition is still maintained at the normal standard. A typical illustration of this class was reported by Dr. J. W. Teal at the Clinical Society of London, in which a temperature ranging from 108°F., to 122° F., and upward, had been maintained for a period of nearly nine weeks. Numerous cases of a similar nature have been reported. These cases plainly demonstrate the fact that the body can withstand a very high temperature and yet suffer no serious damage. For this reason it is clear that we should not consider the increased *per se* as the damaging element, and it further points to the necessity of discriminating between the two kinds of increased bodily temperature when treating the same.

The second form of increased body-heat is due to a disturbance of the chemico-physiological processes, with a decrease in the nutritive activity of the protoplasmic elements of the body; this change in nutrition being primarily most marked in the liver, kidneys, heart and visceral organs, until finally every tissue in the body becomes impaired. With this there is an increased storage, and a decreased excretion of heat. These conditions will also increase the frictional irritation, which now acts as one of the minor elements in producing the rise in temperature. In this light the increased body-heat, as recorded by the clinical thermometer, is only a symptom, pointing in the one case to an increased molecuiar friction and storage of heat without impairment of nutrition. In the other case, to a grave disturbance of the chemico-physiological processes, with marked impairment of nutrition, increased storage, and decreased radiation of heat, and associated with extensive retrograde changes in the body, which are most marked in the visceral organs.

The question naturally raised by this conception of the subject is, what is the cause of the increased temperature? In all the acute and infectious diseases there is unquestionably something introduced into the system, either a micro-organism, a ptomaine, or some impalpable substance. The first effect of this poison, if we may term it such, upon the system is to disturb the normal functional activity of the liver. This assention is supported by clinical,pathological, and experimental evidence. Clinically we know that the liver is at fault by the following symptoms:

The marked tendency to nausea and vomiting of "billious" matter, primary constipation, and clay-colored stools. The urine is, also, decreased in quantity, high colored, strongly acid, and often loaded with uric acid and urates, both indicating incomplete or partial tissue-metabolism.

Pathologically we know that the liver is among, if not the first organ to suffer, for the hepatic cells in all acute diseases becomes enlarged, softened, and abnormally granular, and ultimately their protoplasm undergoes a complete granular and fatty metamorphosis, the extent of these retrograde changes depending upon the severity and duration of the chemico-physiological disturbances.

It has further been proven by the experimental observations upon animals, by Dr. G. Pisenti, that there is a diminution in the quantity and quality of bile secreted directly in proportion to the intensity of the fever. He, however, considered the change in the biliary flow as purely functional, and not resulting from any structural change in the liver cells. But it is hardly possible to conceive of an abnormal glandular secretion without some abnormality in the protoplasmic ele-

ments composing the organ implicated. Further than this, careful pathological study and miscroscopical examination of the protoplasm of the liver-cells,in all the diseases in which an increased temperature was a marked clinical feature, has shown a granular and fatty metamorphosis, and argues strongly against the purely functional view, and supports an organic change as the cause of the disturbed biliary secretion. Following the retrograde changes in the liver, the kidneys, heart, and various organs of the body undergo a similar granular and fatty metamorphosis, either in the order of their physiological importance or their nutritive condition, at the time of the attack.

As a natural sequence of these observations it becomes apparent that whatever the etiological factor may be, its first deleterious effects are to produce a disturbance of the normal activity of the liver, which is manifested by a diminution in the quantity and quality of bile secreted. This, at first, functional disturbance is speedily followed by a marked granular, and later a true fatty, metamorphosis of the liver-cells.

As a result of this functional and organic disturbance of the hepatic function, the intestines are deprived of their requisite quantity of biliary secretion, which acts as their normal disinfectant and peristaltic excitant, consequently the intestinal digestion and absorption is incompletely performed. The nutritive materials absorbed and taken to the liver being in a very imperfect state of transformation, they likewise carry with them considerable effete material, which has resulted from the increased decomposition constantly going on in the intestinal tract. This further interferes with the hepatic function, and decreases the nutritive supply of the liver-cells, and has a marked tendency to cause a progressive metamorphosis of their protoplasm.

Under these circumstances the work to be performed by the liver is greatly increased, its biliary secretion and nutritive supply decreased, and its epithelial protoplasm impaired. Naturally in this condition the nutritive substances leaving the liver for general distribution to the tissues of the body are in an imperfect and irritating condition, and the general nutrition is imperfectly accomplished. The effete material now resulting from tissue-waste that is to be eliminated is unusnally large and very irritating. The nutrition of the excretory organs is diminished, and their power of excreting heat, especially that of the skin, is impaired, while the storage of heat is increased by the inability of the kidneys to rid the system of the rapidly accumulating effete matter. There is now an abnormally large amount of effete and unduly irritating material constantly circulating in the blood, which, together with the original poison and the increased intestinal irritation, causes an increased production and storage of heat, with a decreased excretion of the same, and explains the high temperature. At the same time the cerebral centers are kept in a state of irritation, which accounts for many of the nervous manifestations associated with the increased temperature.

If the skin, kidneys, alimentary tract, and excretory organs can eliminate this effete and unduly irritating material as rapidly as it is produced, then there will be little or no retrograde change in the protoplasmic elements or the body, and the temperature will rise but little, if any, above the normal standard. But when the opposite is true, the temperature will continue to rise until the fatal end is reached, or until the vital centers are suddenly paralyzed and the patient passes into a state of collapse with a falling or subnormal temperature.

Taking this view the subject, the chemico-physiological disturbances aud parenchymatous changes of the visceral organs are the cause of, and not the result of, the increased bodily heat.

Assuming that this functional and organic derangement of the liver and excretory organs is the chief pathological factor in producing and maintaining an abnormally high temperature—that the original poison of the disease is the chief etiological factor—we are

in a position to study the comparative merits of the various antipyretic remedies, and ascertain if they have a tendency to interrupt these abnormal physiological processes, and aid nature in establishing the normal standard.

First.—Is quinine a general antipyretic? That quinine is a positive antidote to the malarial miasm introduced into the system no one can deny. It destroys or removes from the system the exciting cause of the disease, after which nature immediately restores the functional activity of the liver and excretory organs, when the normal temperature is regained and maintained. But in all the cases where there is no malarial miasmatic poison associated with the infectious disease, quinine has little or no effect in reducing the temperature. Many individuals, however, are all the time more or less poisoned with malarial miasm, and in them the development of any acute or infectious disease enables the malarial poison to become a more active agent and one of the factors in exciting an increase in the bodily temperature. In these cases the quinine antidotes whatever influence the malarial element may have in exciting and maintaining the body-heat above the normal standard. But when the cases are carefully studied those in which the malarial element is absent are found to be unaffected by the administration of cinchona or the alkaloids. Consequently we are not justified in regarding quinine, in any form,as a general antipyretic. From this peculiar and specific property of quinine in malarial pyrexia Professor Andrew H. Smith, of New York, has suggested that in all infectious diseases in which there is an abnormal rise in the temperature, a different and specific cause exists, and for each there may be a special antipyretic, as quinine is for malaria. If we could isolate each separate cause, and discover the drug or remedy that would antidote it, then this theory would be fully confirmed.

Second.—Salicylic acid acts as an antipyretic by its property to decrease fermentation in the alimentary canal, thus shutting out one of the elements which help in destroying the nutritive and functional activity of the liver, and which, secondarily, cause a general disturbance of the system at large. It also increases the heat-excreting power of the body by its pronounced diaphoretic action. This naturally favors the surface radiation and prevents to a certain degree any increased storage of heat by the system, and consequently the abnormally high temperature is lowered.

Third.—We will consider a group of so-called antipyretics which includes antipyrine, antifebrine, thallin, kearnin, resorcin, etc.

They will be treated in common, as their action is quite similar. What their physiological actions are in reducing temperature has not been satisfactorily demonstrated. Experimental study, however, shows that in large doses they produce a rapid and marked parenchymatous metamorphosis of the liver and kidneys, which is followed by albumen and casts in the urine. They are also thought to have a direct depressing effect upon the medullary and spinal centers. This being true, is not their antipyretic action due to their causing a further increase in the functional and organic metamorphosis of the protoplasmic elements of the body, which disturb still more the physiological processes of the liver, kidneys, and excretory organs, and thus causes a greater accumulation of effete and toxic matter in the blood, until the accumulation becomes so large that a state of general depression is produced which throws the system into a condition strongly simulating that known as collapse, during which the temperature falls? As the system recovers from the shock, if it does, this large amount of waste material continues to increase the irritation and general disturbance to the system, and causes the temperature to rise to a higher degree than that attained prior to the administration of the drug. This view finds considerable support in the clinical course of the diseases in which these drugs have been given, and still more in the pathological conditions found at the necropsies.

Clinically it has been frequently noticed that the patient died suddenly from heart-

failure after a dose from this group of remedies. Another very noticeable fact is the very high temperature that follows their administration, patients frequently dying with a rapidly rising temperature, which almost invariably succeeds the fall produced by their action. Before the introduction of this group, death with a temperature above 105° or 107° F. was a rare occurrence, while since their introduction death with the temperature rapidly rising to 108° F., or 110° F., and higher, is quite common.

Many a hospital interne has asked, are not the high temperatures of to-day due to the new and free use of these coal tar products.

Pathologically we find at the present time more marked and destructive parenchymatous changes in the liver and kidneys than was the case before the introduction and use of this group. In many instances the examination of the liver and kidneys has revealed a condition of granular and fatty metamorphosis equally as bad as that found in acute yellow atrophy of the liver, or in connection with phosphorus-poisoning.

Experimental research with this group has taught us that their full or toxic action is to produce a parenchymatous transformation of the liver and kidneys, with the development of albumin and casts in the urine. If they are capable of producing this effect in normal organs, is it not reasonable to suppose that in diseased conditions, when the general tendency is to parenchymatous changes, they will produce this same transformation more rapidly and in much smaller doses?

Dr. Frederico Vananzio, after a clinical study of the use of antipyrine in scarlet fever, reaches the following conclusions:

1. Antipyrine certainly reduces the temperature in scarlet fever for a length of time and to an extent which varies with the dose and individual; but the fever, on the cessation of the drug, returns with renewed intensity, even when by the careful and diligent use of the remedy it has been possible to suppress it for many hours in succession.

2. During the hypothermia produced by the administration of antipyrine, no appreciable improvement, either subjective or objective, is manifested by the patient, aside from the simple reduction of the fever.

Indeed, the ordinary syndromes and complications of the disease are neither prevented nor modified. In the toxic form, when it is desirable to re-enforce the "cardio-vascular tone," the antipyrine does not in the least oppose the advance of the collapse.

6. Antipyrine prolongs rather than shortens the duration of the disease.

4. In some it produces cerebral congestion, persistent vomiting, and prostration.

Dr. Jacubowitsch, after using antipyrine in various diseases in children, comes to the following conclusions: Antipyrine lowers the temperature in all cases, but to a very slight degree in healthy children. The amount of the fall did not always depend on the dose. The temperature did not remain at the lowest point for more than twenty hours. The greatest fall occurred about midnight, after which the temperature gradually rose. In healthy children even large doses failed to lower the temperature to the same extent as in the feverish; young children take large doses well for from one to two days. In most of the cases the quantity of urine was diminished to the extent of nearly one-half; it was concentrated, and the specific gravity was increased. The quantity of urea, uric acid, sodium chloride, phosphoric and sulphuric acid was notably diminished during the use of antipyrine. Forty-eight hours after the last dose the daily quantity of all these urinary constituents was greater than before the drug was given. The author feels some hesitation in recommending the use of antipyrine in fever cases, because, in spite of its antipyretic power, it could not safely be used for any length of time if the remarkable retention of the products of oxidization is confirmed.

Professor Ehrlich reports a case (*Munchener med. Wochenschr.*, No. 8,) which ended fatally under repeated progressive doses, namely, 0.08 up to 0.58 gramme (one and one-quarter to nine grains), of thallin tartrate. The necropsy showed the lesions of typhoid fever in the healing stage, cardiac hyper-

trophy and dilatation, and hemorrhagic infarctions of the renal papillæ, the last mentioned being, as shown by experiment, a characteristic sign of thallin-poisoning. He further assumes that the danger may be completely avoided by fixing the minimum dose for hourly administration at 0.2 gramme (three grains) of the tartrate of thallin.

Professor William H. Draper, in a paper read before tho Academy of Medicine of New York, reported twenty cases treated with antipyrine, with a death-rate of five in twenty, or a mortality of twenty-five per cent.

Dr. Goetze, in the *Berlin klin. Wochenschr.* of March 9, 1885, gives as the results of his experience with antipyrine the following conclusions: That in no case has he observed the course of the disease shortened by the use of antipyrine, and that in the severe general infection not only the fever but the remaining symptoms fail to be influenced by the drug.

Professor Ehrlich, in the *Munch med. Wochenschr.*, No. 47, commenting upon the action of thallin in typhoid fever, makes the following statement: Of twenty-eight cases treated by bathing, the average stay in the hospital was thirty-seven days; of seven cases treated by thallin (minimum doses) the duration of treatment was forty-seven days, and cases on a scale of progressive doses thirty-eight days.

The result of cases treated wish antifebrine is even less favorable.

The preceding observations necessitate the following conclusions and queries:

First. That this group of antipyretics will lower temperature, but at the same time they will cause a retardation of the excretory functions of the body, and a retention of the waste, or effete products of the system.

Second. They do not modify the intensity nor shorten the duration of the disease, but tend to prolong the symptoms.

Third. The fall of temperature is only temporary at best, and is generally followed by a higher temperature than that existing prior to their administration.

Fourth. Their use gives a high death rate, and in some instances they appear to be the direct exciting cause of the fatal issue.

Summing up this experimental, clinical, and pathological proof naturally leads one to argue strongly against the use of any of this group of drugs as antipyretic remedies; and raises the question, Are they in any sense, from a physiological and pathological basis, true and safe antipyretics?

Again, have they increased or decreased the mortality in connection with the acute infectious and contagious diseases? Unless it can be absolutely proved that they decrease mortality, and tend to prolong life, we are not justified in using them, even if they do lower bodily temperature.

Although many articles have appeared praising the usefulness of this class of remedies, we have the above plain facts in opposition to their use. This much can be said, it has not proven that they in any way antidote the poison, neither have they shortened the duration of the diseases in which they have been administered, or decreased the mortality, while there is much proof to the contrary.

They may possibly decrease intestinal fermentation to a slight degree, and thus aid in cutting off one source of irritation; but if, following this, they cause increased parenchymatous metamorphosis, with retention of the excrementitious products, and impaired nutrition in general, they certainly destroy the physiological vitality of the body, which more than overbalances any good effect that can be credited to their action.

Fourth. The cold bath or pack deserves a word. The physiologists teach that in case the body-heat has been increased by active exercise, which necessitates greater oxidization, exposures to cold or draughts are dangerous, for they tend to arrest the function of the skin, and cause a retention of the excretory products of the body, which gives rise to the condition commonly termed a cold, while in some instances grave visceral disturbances or true inflammatory processes are developed.

When the human body is suffering from a fever the increased heat is the result of this increased work of chemico-physiological oxidization, and the greatest excretory activity

is necessary to rid the system of the rapidly accumulating excrementitious products. To subject the surface of the body at this time to the cold pack or bath arrests the functional activity of the skin, and tends to produce internal congestion, and causes increased excretory work for the kidneys and intestines, which is often followed by increased parenchymatous changes in the liver and kidneys, followed by the sudden appearance of albumen and casts in the urine, uremic toxemia, and death. There are, of course, a certain number who can subject themselves to cold after violent physical exercise without apparent ill effects; likewise some patients can withstand the ill effects of the cold pack or bath without apparent damage and ultimately throw of the effects of both the disease and the treatment. This, however, is no guarantee that the majority can. It is further a well-known fact that many practitioners have abandoned the cold pack and bath, because observation has taught them under their influence the mortality was unusually high.

The following is often noted after their use: Instead of the temperature remaining down after their application, it will again rapidly rise, the cerebral symptoms will become more active, albumen and casts will appear in the urine, and death follow from uremia in a few hours.

All cold packs ultimately act as hot packs, and in this way excite the skin to increased excretory activity, provided the patient has the inherent vitality to rally from the primary shock and physiological disturbance. In this way we have an explanation for the favorable cases credited to the use of severe cold application.

Fifth. Diaphoretics: Of them all it may be said that they are true physiological antipyretics, for they assist the skin to excrete more heat by keeping a larger volume of blood near the surface of the body, and thus keep up a more active evaporation. They also aid in the elimination of the effete material from the system.

Sixth. Diuretics, like diaphoretics, are positive antipyretics, aiding as they do the system to rid itself of one of the chief elements in maintaining the abnormally high temperature. The kidneys being the chief organs by which the system excretes the waste material resulting from proteid metabolism, special attention should be devoted to these organs from the very inception of every acute or infectious disease, as their nutrition is apt to be impaired, while at the same time the work required of them is increased, until finally they are unable to accomplish their task. The urine becomes more scanty, high colored, strongly acid, of a high specific gravity, and often loaded with uric acid, urates etc. This change in the urine is soon followed by albumin and casts, uremic or toxic symptoms are developed, which are made evident by an aggravation of all the symptoms of the disease, but especially the cerebral, and death speedily ensues.

Seventh. Alcohol also acts as a serviceable antipyretic by diminishing body-oxidization, and at the time supplying to the system a hydrocarbon that it can utilize. In this way more water is produced, diaphoresis and diuresis increased, and the heat-radiating power augmented. At the same time it improves the general nutritive condition of the body and aids in preventing heart-failure.

Eighth. Sponging with tepid water and alcohol is one of our most efficient means for reducing temperature, provided it is properly employed. It causes a rapid excretion of heat, and acts as a stimulus to the skin and renders it more active—one great object to be obtained.

In bathing the sick one rule should be rigidly enforced. After sponging a portion of the body the nurse should rub the skin of that part perfectly dry with the bare hands before another portion is bathed. There is nothing more uncomfortable than to be left wet and clammy. On the other hand, nothing is more refreshing and soothing to a patient than such a bath, provided the skin is dried in the way suggested.

Ninth. But the remedy which strikes strongest at one of the main sources of the increased temperature is the pure ox bile, or

the fel bovis inspissatum. The administration of bile causes the milk to curdle in fine flakes and be more perfectly digested. It prevents intestinal decomposition and stimulates a gentle peristalsis, which favors the capillary circulation of the intestine and increases the rapidity of absorption. The fel bovis also increases the perfection of the intestinal digestion, which, together with a more rapid circulation and peristalsis, causes absorption to be most perfectly accomplished. At the same time these favorable conditions decrease the amount of effete and irritating substances that can be drawn up into the system with the nutritious elements. As a result the liver receives a much larger quantity of pure nutritive substance and a smaller amount of irritating and deleterious matter; consequently the work required of the hepatic cells is lessened, and the nutritive pabulum reaching the system at large is better in quality, and the nutrition in general is kept at a higher standard. The resulting excretory products are necessarily more perfectly formed and are less irritating to the excretory organs.

We now find the abnormal heat-producing power reduced to the minimum, less stored up, and the excretory organs better able to eliminate whatever increased heat is developed.

In this way a nearer approach to the normal standard is maintained, the original poison is given less chance to injure the system, and it is easily and rapidly eliminated.

These statements are especially true in connection with typhoid fever, and it has been a noticeable fact, both in my own cases and those of others who have followed this line of treatment, that the patients had less tympanites, less cerebral disturbances, and the temperature was maintained at a moderately low degree throughout the disease. Albumin and casts in the urine were rarely found, and when they did appear they were in small quantities.

In pneumonia, where the temperature is largely due to continued absorption of the rapidly liquefying inflammatory exudation, increased storage and decreased radiation of heat, the fel bovis inspissatum does not reduce the temperature to so marked an extent. But in so far as it improves digestion, absorption, and assimilation in general, it decreases the storage power and increases the excretion of heat, and thus brings down the temperature to a certain degree. Also by improving nutrition it increases the eliminating power of the excretory organs and often prevents a fatal renal complication or a sudden failure of the heart's action. The accomplishment of even this is of great advantage in all pyrexial states.—*Med. Rec.*

NOTES ON DIAGNOSIS AND TREATMENT OF UTERINE CANCER.

In an article in the *Maryland Med. Jour.*, Aug. 4, Dr. T. A. Ashby said: With the aid of the microscope, and more careful clinical observation and study, uterine cancer may be recognized at a sufficiently early period to admit of complete eradication by surgical instrumentality. And in those cases where the disease has involved the greater part, or almost the entire uterus before its presence is discovered or its elimination determined upon, improved methods of operation have been successfully employed for the complete removal of the morbid growth, or for the temporary subjugation of its most distressing symptoms. The surgical treatment of uterine cancer has so far revolutionized the natural history of the disease that it may be stated in scientific language that this affection belongs to the class of curable maladies.

For strict clinical purposes, epithelioma, carcinoma and sarcoma are the three types of uterine cancerous development. Sarcoma is extremely rare, and when present generally attacks the fundus. Both epithelioma and carcinoma begin in the great majority of cases in the cervix.

Carcinoma differs quite markedly in its primary manifestations from the epithelioma. It begins in the deeper tissues of the uterus and presents at first a more or less firm, nodulated deposit, which is covered by healthy mucous membrane. These nodulated masses

spread toward the surface, and ultimately become gangrenous, break down and form cancerous ulcers, which produce rapid necrotic destruction of the tissues. The starting point of carcinoma is believe by some authorities to be the connective tissue of the uterus, but this opinion has been disputed by other and more recent observers, who hold that this variety also commences in the mucous membrane.

The student of this subject is met with numerous conflicting statements in regard to the origin and extension of these malignant growths, but nothing seems more definitely settled than the fact that the initial stages of epithelioma and carcinoma are beyond positive demonstration, and that the transformation of a non-malignant into a malignant growth can only be determined by continued observation and clinical study. The microscope will scarcely be of accurate service to the average clinical observer during this period of transition. We rather think the clinical test is of more positive reliance.

The location of other lesions upon the cervix uteri, such as simple erosions, lacerations, vegetating fungosities, areolar hyperplasia, and induration of the mucous and submucous tissues, are at times extremely confusing, and may be mistaken for malignant changes. It is highly probably, too, that we have in not a few of these latter lesions an initiative stage to malignant degeneration which demands prompt recognition and treatment.

The diagnosis of a well-established malignant action should not be a complicated act. Numerous tests are at our command to confirm or disprove a suspicion of malignancy. Such tests do not apply to incipient epithelioma and cancerous infiltration of the cervix under neath the as yet healthy mucous membrane. All must admit the advantages which would flow to the patient from a recognition of these diseases at this early stage of their progress. We have, unfortunately, no symptomatic phenomena which will prove as reliable guides to an early diagnosis. Where attention has been directed to the uterus from various causes, a discovery of the lesions under consideration is highly probable, but cases have and will occur in which the disease has advanced almost beyond the stage for successful local treatment before its existence was even suspected.

In those cases under daily observation, we have clues to the suspicious inroads of malignant disease which, if followed carefully, will indicate the character of the condition observed. Epithelioma of the os uteri always begins in the form of an erosion. It differs from a benign erosion in the fact that it is more deeply and evenly excavated and possesses more infiltrated borders. The papillæ which spring from the ulcer bleed more rapidly and often exude at an early period a fluid which Gusserow has described as resembling "meat juice." The behavior of this erosion under local treatment will indicate its true character. Should it fail to heal or cicatrize from the edges, we may be sure we are dealing with an epithelioma. Its complete eradication with the knife or actual cautery is at once demanded. While epitheliomas very early give strong presumptive evidence of their presence,the recognition of a carcinoma, at its very beginning, is far more difficult. We have no abrasion of the mucous membrane to arrest attention, and should the carcinoma begin as a general hypertrophy and chronic induration of the cervical tissue, its true character is very obscure. Where the disease originates in isolated nodules, situated beneath the mucous membrane, its idenity is more apparent. It has been suggested by Spiegelberg that the natural elasticity and dilatability of the cervix is destroyed by carcinomatous tissue, and that we have in these conditions and in an impaired mobility of the mucous membrane overlying the deep seated growth, strong presumptive evidence of malignancy.

We confess to a mistrust of these signs, and would prefer more confirnatory evidence than this information gives.

Uterine cancer is a disease which follows in the wake of civilization, and is undoubtedly on the increase.

The general consensus of opinion is in sup-

port of the assertion that the disease is of local origin, and, therefore, is easily eradicated in its primary manifestations. I have endeavored to show the importance of an early recognition, and the various tests which will enable one to determine the distinction between a malignant and non-malignant action. The difficulty in the way of a correct diagnosis is fully appreciated during the primary or initiatory stage of the disease. I, however, think the practitioner will avoid numerous errors, and at the same time adopt a judicious and successful course of action, if the following general facts are kept before his attention:

First.—An indolent erosion and other inflammatory lesions on the cervix uteri should be kept under close and constant observation. Such lesions should be systematically treated by local applications when this treatment is possible.

Second.—Lacerated wounds of the cervix should not be allowed to remain open when they show the least predisposition to an erosive action.

Third.—Leucorrheal discharges or profuse hemorrhage at menstruation or during the intermenstrual period should be a sufficient warning to the practitioner to request a vaginal examination to determine the cause of these symptoms.

Fourth.—Continual backache, pelvic pains, disturbances of the bowels or bladder, a cachectic appearance and fetid discharges should always lead to careful examination and inspection of the vagina and uterus.

I by no means contend that uterine lesions or that any large number of them necessarily tend to take on a malignant action. I simply insist that lesions of the cervix, within the uterus or of the vagina should be kept under observation, even if circumstances do not favor their systematic treatment.

I have previously indicated the importance of a radical excision of a malignant disease of the uterus at the earliest moment we become well convinced of the correctness of this diagnosis. The method of accomplishing this result must be left to the judgment and discretion of the operator.

I shall now refer to a class of cases in which the diagnosis of malignant disease is no longer a question for consideration. The only facts which present themselves relate to the question of treatment. Necessarily the location of the lesion enters prominently into the choice of methods of relief. During the last few years the relative advantages of partial amputation and of complete extirpation have been discussed, and much evidence has been adduced in support of both of these procedures. In 1882 Baker, of Boston, proposed a plan of high amputation which, in his own hands and in the hands of other gynecologists, has been exceedingly successful in saving and in prolonging life. The method has for its aim the removal of the morbid tissue by complete excision through the vaginal walls. The procedure is applicable only to cancer of the cervix or lower uterine segment and before the surrounding tissues have become involved in the cancerous infiltration.

In summing up the advantages of high amputation, Dr. Baker offers the following suggestions:

1. That by it we are able to remove more of the uterus than by any other form of high amputation.

2. The opening of the peritoneal cavity is not necessarily involved in its performance.

3. The practicability of using the touch in determining the extent of the disease as the operation proceeds is retained, which cannot be practiced when the galvano-caustic wire is used.

4. All the advantages of the galvano-cautery are retained by the application of the thermo-cautery, at a red heat, to all the denuded surfaces, and made more effectual even by previously being sure that the disease, as evidenced by the touch, had been removed.

5. It is more practicable for the general surgeon than total extirpation.

6. The length of respite from the disease is greater than in any reported cases of total extirpation, and the percentage of recoveries from the operation greater than by any other method of high amputation.

Within the past two or three years the sur-

gical treatment of uterine cancer has leaned altogether in the direction of the operation of vaginal hysterectomy. This procedure has not only been instituted for cancer of the body and fundus, but when the cervix only was involved. Its advocates defend the operation on the ground that it is radical in character and the only correct method of entirely eliminating the malignant tissue. Were this positively true the procedure might be considered entirely legitimate, but it has been shown that the disease will often return with special virulence, and that the mortality of the operation does not warrant its adoption in all conditions of uterine cancer. Much has been done to improve the technique of hysterectomy, and each year shows an improvement in the percentage of mortality. In 1886, the mortality was found upon collection to be 27 per cent. In 1887 the mortality was found to have decreased to 10 7-10 per cent, thus showing a marked improvement in methods and details. It is too soon to determine the extent of the benefit conferred upon those women who have recovered from the operation of hysterectomy. That recurrence will follow total extirpation statistics already show, but Schauta has claimed that 70 per cent are free from recurrence one year after total extirpation, as compared with 50 per cent after partial amputation.

Where the cancerous disease is limited to the tissues of the uterus, the selection of the method of removal lies between high amputation and vaginal hysterectomy. The low mortality rate of the former procedure and its ease of performance will incline many surgeons to adopt this plan, the wishes of the patient entering likewise as a factor into the decision. Vaginal hysterectomy is not a simple procedure. In inexperienced hands it becomes a bold and hazardous venture, and should not be undertaken until every step and detail have been mastered and every appliance is at hand for the careful execution of the operation.

Owing to the fact that cases of uterine cancer often do not fall into the hands of the gynecologist until the disease has extended to the tissues surrounding the uterus, the operations of high amputation and of total extirpation are not possible of adoption in all cases. Reliance must, under such circumstances, be placed in palliative procedures. Whilst it may not be within the power of the medical attendant to remove the disease, he may still be able to prolong life and to relieve distressing symptoms. Uterine cancer may progress slowly. It often destroys life by the distressing symptoms it evokes before it has done so by the destruction of vital tissues. Thus pain, hemorrhage and offensive discharges attend the progress of the disease, and it is these symptoms which often exhaust the life of the patient long before important tissues have become involved. It, therefore, becomes important in the treatment of this disease to palliate or remove these symptoms. To consider them in detail, I shall arrange them under their respective heads.

Pain. Pain is not a constant factor in uterine cancer. Frequently it is not experienced until the disease has extended to neighboring organs. On the other hand, in not a few cases it is an early and one of the most distressing symptoms met with, as well as one of the most difficult to combat. There seems no solace for such cases except in anodynes. Opium plays the most conspicuous part in the treatment of this condition, and whilst it enslaves the patient it is questionable whether its use should be interdicted. In a few instances I have relieved pain by removing large masses of cancerous tissue, thereby removing mechanical pressure, the chief factor in provoking this symptom. The curette then becomes of service in this as in the other symptoms, to which reference will be made.

Hemorrhage. — Hemorrhage frequently does not make its appearance until cancer has developed to a considerable extent. It may, however, be the first symptom which calls attention to this disease. It is not always regarded by the patient or by the attending physician as an indication of cancerous trouble. The failure to recognize the relation which hemorrhage bears to this disease has led to serious oversight and neglect. Con-

tinuous or copious uterine hemorrhage should never be permitted to go on without an examination to ascertain its cause. In this way only can an accurate diagnosis be reached.

This rule should apply to all women, but especially to those women who have a return of uterine hemorrhage after the menopause. The origin of hemorrhage in uterine cancer is an erosion of the tissues, or a papillomatous growth sprouting out from the seat of the morbid process. Epitheliomas take on a rapid exfoliation of new tissue, and fill the vagina at times with masses resembling in every respect,save color,a cauliflower growth. I have seen a papilloma half the size of an infant's head fill the entire vagina within a comparatively short time after a former removal. The outgrowth of new tissue is very marked and rapid in some cases, and gives rise to copious hemorrhage, offensive discharges and severe pain. The removal of this tissue has a most beneficial effect upon the patient. It arrests, for the time being, hemorrhage and pain, and changes the character of the discharge from an offensive to a simple muco-purulent secretion. The sharp curette is the most effectual way to remove this newly-formed tissue. After curetting, the solid stick of nitrate of silver carried into the tissues will remove all that the curette escapes. It may become necessary to tam pon the vagina with iron-cotton for a few days. After the removal the cancerous mass will granulate nicely for some weeks thereafter, and the patient will thus gain a respite from hemorrhage, pain and foul discharges. Her general bodily condition will improve, and all will go on well until the return of the papillomatous neoplasms. It will become necessary to attack the growth as soon as it pnts in its appearance. If this is done the condition of the patient can be kept good for many months, or possibly years, until the cancerous infiltration involves the rectum, or bladder, or other vital organs. An extensive experience with uterine cancer has induced me to regard the palliative treatment, above indicated, as of great value and comfort to these patients. Life can be prolonged and general comfort maintained by repeated attacks upon the progress of the disease, thus as it were "knocking it on the head" as fast as it shows itself in a threatening attitude. The time will arrive when nothing can be done; but this is true of all organic troubles. We may help the patient vastly by a cautious use of the curette and escharotics.

Foul Discharges.—The necrosis of uterine tissue and the retention of blood and secretions make a most offensive odor in these cases of uterine cancer. The patient is often a nuisance to herself as well as to others. To combat this symptom nothing is more effectual than the curette and caustics. Keep the cancerous mass clean and the offensive discharges will cease. So long as necrotic tissues are removed and decomposed blood and vaginal discharges are not allowed to accumulate within the uterus or vagina, the foul odor will not be present. I have seen these cases kept free from unpleasant odors up to the very time of death by the method suggested. In the intermediate stages of uterine cancer—that is, during the time the disease is beyond eradication, but susceptible of palliation—these patients may be able to go about and enjoy social and devotional exercises in fair health and comfort. This would not be the case were not local treatment employed in the manner previously indicated. The highest mission of science is to prolong life and render it comfortable. All organic diseases lead to a fatal termination, but if we can arrest degenerative processes by medicine or by surgery, the result is worthy of accomplishment. This hopeless malady to which I have called attention appeals loudly to the sympathy and skill of our profession. Let no one despair of being able to render a service to such cases.

PUERPERAL ECLAMPSIA TREATED BY INDUCTION OF PREMATURE LABOR.

BY N. WINGFIELD MEADOWS, L. K. Q. C. P.

The patient, Mercy R——, aged eighteen, a strong and healthy primipara, six and a half

months advanced in pregnancy, first consulted me on Sept. 20th, 1887, for persistent headache and giddiness of a week's duratien. On examination, I found the urine to contain 30 per cent. of albumen, high colored and scanty, with marked edema of both legs and a considerable degree of general malaise. She was ordered a brisk cathartic, to rest in bed with the feet raised, and to take tincture of digitalis (twenty minutes,) acetate of potash (five grains,) and camphor water (one ounce) every four hours.

Early on the following morning I was summoned in great haste, the messenger stating that she was having fits and dying fast. On arriving, I found the patient in a condition of clonic spasm, unconscious, and with difficulty held in bed by two nurses, the seizures recurring every half-hour, each lasting about five minutes. They presented the usual characteristics of puerperal eclampsia as described in text-books: the pupils dilated, lids open and eyes directed upwards, teeth clenched, breathing in gasps, the face intensely cyanosed, and twitching violently with each respiration. The tongue had unfortunately been bitten through before I arrived. On attempting to examine per vaginam, the convulsions redoubled in severity, the mere contact of the hand with the labia throwing the patient into a condition of opisthotonos, rendering impossible the completion of the examination. On placing the hand over the fundus uteri no contractions could be felt. The inhalation of chloroform to the full extent slightly reduced the duration of each attack; it produced, however, no permanent effect either upon the seizures themselves or upon the length of the intervals between them, the condition of the patient becoming the same each time its administration was suspended. Two scruples of chloral having been administered per rectum, and repeated an hour afterwards, without producing any better result, I performed venesection from the basilar vein to the extent of eight ounces. The blood thus obtained was of an almost black color, and coagulated rapidly upon exposure to the air; with its flow the cyanosed aspect of the face and neck gradually disappeared, and the patient relapsed into a state of absolute coma, which persisted throughout the night and until 4 P. M. of the following day, a period of thirty hours, during which interval the catheter was employed frequently, and her strength supported by enemas of egg and brandy. Towards midnight, consciousness becoming partially restored, I was enabled to administer a strong cathartic by the mouth, and a mixture containing half a dram of chloral and one scruple of bromide of potassium. Copious watery evacuations were produced, and the patient expressed herself towards morning as feeling much better, but with no recollection of her previous state. On again testing the urine, the amount of albumen was found unaltered.

Judging the opportunity favorable to obtain a few hours' much-needed sleep, I now left the patient in charge of two nurses, giving them strict injunctions as to the treatment I wished employed until I could visit her in the evening. I had, however, barely reached home (a distance of six miles) when I received a note stating the fits had recurred with unusual severity,and urgingmyimmediate return. On arrival with all possible speed, I found the seizure to be marked by no intermissions, the patient being in one continuous fit, with her limbs violently convulsed at intervals, her face congested to the last degree, the pulse full and wavering, respiration jerky, and at times suspended for half a minute. Employing the same remedies as before, but with no better result, and finding her strength to be fast sinking, I obtained a hasty consultation with Dr. Paxton, at that time acting as *locum tenens* to Dr. James at Biggleswade, in which we agreed that the sole chance of recovery lay in emptying the uterus of its contents without further delay. Chloroform accordingly being administered to the fullest extent, a thorough vaginal examination was with some difficulty obtained, the introduction of the hand causing uncontrollable contortions of the whole body, notwithstanding that the administration of the anesthetic had

been pushed to its utmost. Finding the os undilated and a vertex presenting, the membranes were punctured in the expectation that the escape of the liquor amnii, aided by hypodermic injections of ergotine, would induce uterine action and the case so terminate naturally; six hours having, however, elapsed without bringing any change, the uterus during the latter part of this time being in a state of continuous spasmodic contraction and the parient's powers fast failing her, an attempt was made to dilate the os by means of a small-sized Barnes's bag (the finger having been previously employed, in the absence of a sponge-tent, to allow of its introduction,) but this proved fruitless, owing to the irritation it set up causing the patient's movements to increase to such a degree as to render its retention impossible. The os was therefore forcibly dilated by the fingers, and at 11 P. M. I was enabled to apply the long forceps and to deliver the patient of a seven-months fetus, which bore traces of having been dead in utero about a week. Very little subsequent hemorrhage occurred, the uterus, aided by pressure at the fundus, contracting well upon its contents as they were withdrawn. The convulsions ceased entirely within half an hour after delivery, but the pulse became almost imperceptible, the face blanched, and syncope imminent. A nutrient enema, together with hypodermic injections of ether, happily counteracted these effects of shock; but it was not until nine o'clock of the following evening, twenty-four hours after delivery, that partial consciousness was restored. The subsequent progress of the case was one of uninterrupted convalescence. The edema of the legs was absorbed by the end of the second day, and the amount of albuminuria reduced to one-third its original amount. A week later this had entirely disappeared, and the patient was allowed to sit up.—*Lancet*, July 14.

An Appliance to Prevent Mastubation. —Dr. Everett Flood reports a case (*Bost. Med. and Surg. Jour.*, July 12) in which a youth of seventeen years was the subject of epileptic seizures, presumably caused by masturbation. The habit was stopped, and the spasms had not returned for nearly three months.

The mechanical appliance used to assist the patient's resolution was a plaster bandage applied as follows: A sheath of oil silk was first made to cover the penis and project an inch beyond, the limp organ hanging down straight between the thighs; then a layer of cotton wadding covered in the scrotum and buttocks, leaving a triangular opening, three inches on each side for defecation. The plaster bandage then covered all, and went down around the penis and up about the waist making, when hard, a complete casing, so that the boys genitals might have been in the next county for all the sensation his hands could communicate.

He managed very well at school, suffered no chafing from the edges between the thighs, walked freely enough, though he could not take full-length steps, and urinated while standing and holding the vessel under the projecting oil silk. He surely did not masturbate.

He soon acquired a confidence that was comforting, and his self respect began to improve. After a few weeks he felt tolerably safe, and as the bandage had become soiled in places and was rather disagreeable in consequence, it was removed and has not yet been reapplied.

THE DISASTROUS RESULTS OF A NEW ARTIFICIAL DRUM MEMBRANE.

BY FRANK W. RING, M. D., NEW ZORK.

The above title of the report of this case is misleading, but it would otherwise have been necessary to have extended it to undue length. Miss X—— consulted me June 14, 1887, in regard to poor vision. Complained of seeing less well with the left eye. I examined them both and gave her a pair of cylindrics. During the conversation relative to the visit, I mentioned the fact that, as she was apparently deaf, I had better look at her ears. The lady was very much embarrassed at my suggestion,

and remarked that there were reasons why she would prefer I should not examine them. My curiosity being excited, at last elicited from her the following history:

She could not remember, from childhood, ever having heard as others, but was obliged to listen intently and watch the expression of those conversing with her. She became exceedingly sensitive, impressible, and despondent. Would shun society and associate only with her most intimate friends. It was at this time, when about twenty years of age, in 1879, that she chanced to meet a retired army surgeon, who was kind enough to assure her that all she needed was a new drum, and he highly recommended *larding pork*, which the young lady immediately began to use in this wise: She would get from the butcher a piece of salt pork for larding, cut a portion sufficient to fill the external auditory canal, and plug it. At first it was removed every few days, but after a few years of constant use it would not be necessary to change it oftener than once a week. She was confident she heard better. The difference was apparent immediately the pork was removed. And when I first saw her, June 14, 1887, she was continuing in her usual manner, changing the new drums once a week, but did not hear as well as formerly. I was extremely anxious to look into auditory canals which had been packed with larding pork for eight consecutive years, and upon representing to her the great danger she was incurring from the practice, she afforded me an opportunity of examining them the next day.

I found a suppuration of both middle ears, extending to the external meati. Both canals were filled with pus, detritus, and cheesy matter. The mucous membrane was raised in folds, like a washer-woman's fingers. The membrana tympani were almost entirely destroyed, a ring-like edge only existing. The inferior extremity of the handle of the malleus was exposed in both ears. In the right the watch was heard at one inch; left, one-half of an inch. Right aerial conduction, nine seconds; left aerial conduction, five seconds; right bone conduction, fifteen seconds; left bone conduction, thirteen seconds. I only saw the patient twice at this period, as she immediately went away for the summer. It was with reluctance she discontinued the use of the pork—as her hearing was undoubtedly decreased without it. I gave her proper directions in regard to treatment during her absence, and did not see her again until September 15th, when the hearing was reduced to contact in the right, and one half-fortieth in the left. There was a discharge from both ears, no modification in the membranes, redness and swelling of adjacent parts.

After constant treatment from September 15th to December 3d, the left membrane closed with several cicatrices adherent to the inner wall of the tympanic cavity. During the final cicatrization of this membrane the patient had severe pain in the ear, located in the meatus and tragus. Hearing distance, contact with watch, the 24th of this month (December). The right membrane had healed by extensive cicatrics, adherent in several places to the inner tympanic wall. She had severe pain for several days during this period, so that I applied a blister to the mastoid, and hot water injections to the canal, which gave her relief.

The suppuration in the left ear ceased December 3d, and there has been no further treatment applied to it, except inflation; but in the right a persistent oozing continued up to March 1st. I had exhausted all remedies in the pharmacopeia, including antiseptic, alcoholic, astringent, and caustic treatment, boracic acid, nitrate of silver from five to sixty grains to the ounce, peroxide of hydrogen, and merely cleanliness, until one day I was telling Dr. F. M. Wilson of my tribulations, and he suggested bichloride of mercury in solution. So I instructed the patient to lie down at stated intervals, for an hour at a time, and keep the ear filled with a one to four thousand solution of the drug mentioned. And in three weeks all signs of discharge had ceased.

The patient now hears better than she ever did before. By the watch, the right is $^{6}/_{40}$, the left $^{5}/_{40}$. Conversation easily heard near by, but not well at a distance. I think the history of this case goes to show the wonderful recuperative power of the ears, after a persistent abuse of their functions for a period of eight years. There may have been other instances of similar conditions, but I have been unable to find them.—*Medical Record.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 8. ST. LOUIS, AUGUST 25, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

DISEASES OF THE NERVOUS SYSTEM.

BY FRANK R. FRY, A. M., M. D.

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II. THE TEMPORAL LOBE AND THE SENSE OF HEARING.

III. HALLUCINATIONS OF HEARING.

IV. A CASE OF FATAL EPILEPSY IN AN ADULT

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XII. ANTIPYRIN IN CHOREA.

THE ANGULAR GYRUS AND THE SENSE SIGHT.

Dr. Sanger Brown, of New York, reports in the *Med. Record*, Aug. 4, '88, "Experiments on Special Sense Localizations in the Cortex Cerebri of the Monkey," made by himself in conjunction with Mr. E. A. Schaefer, Jodrell Professor of Physiology, University College, London.

Ferrier and Yeo have stated that the only lesion (*i. e.*, considering lesions of the cortex) which causes complete and permanent loss of vision in both eyes is total destruction of the occipital lobes and angular gyri of both sides. They have also claimed that complete extirpation of both angular gyri causes for a time total blindness, succeeded by lasting visual defect in both eyes; and that unilateral destruction of the cortex of the angular gyrus causes temporary abolition or impairment of vision in the opposite eye. Other prominent experimenters in this line have held much the same opinion as to the importance of the angular gyri in the visual sense.

This new set of experiments has been made with great care and thoroughness, as proved in each instance by post-mortem examinations. They have also been conducted in the presence of those capable of judging of their importance.

"In one monkey, a small, active, intelligent Rhoesus, we destroyed as completely as we could from the surface, by the actual cautery, the gray matter of one angular gyrus. We tested the sight immediately after complete recovery from the anesthetic, but could discover no defect of vision nor any loss of movements in the eyes or eyelids, nor any anesthesia of the cornea or conjunctiva. When the eye of the same side (as the lesion) was closed with plaster, the animal continued to see perfectly well with the eye of the other side."

"No evidence of defective vision having appeared within one week after the operation, the angular gyrus of the opposite side was destroyed in the same manner as the first. This lesion was not followed either immediately or at any subsequent time by any visual defect that could be discovered by the most careful tests we knew how to apply. This animal was kept several months and examined by many people besides ourselves, and was exhibited at a meeting of the Neurological society held in the physiological

laboratory of University College. That the lesion was complete on both sides was proved by post mortem examination."

"In another monkey we separated the lips of the fissures bounding the angular gyrus of one side and entirely scooped out that convolution, making a deep gap in the surface of the brain. This operation was followed by a disturbance of vision—hemiopia—which entirely disappeared in a few days. No other disturbance of the visual organs could be at any time discovered as a result of this lesion, and the temporary hemiopia is easily accounted for by the disturbance of the circulation in the adjacent occipital lobe, assuming that this latter lobe is the cortical seat of visual preceptions."

In another monkey "the occipital lobe was removed by a vertical incision carried along the line of the parieto-occipital fissure. That the removal was complete was confirmed by post-mortem examination some eight months later when the angular gyrus was found to be quite intact, the cut surface showing as clearly the distinction of gray and white matter as when the operation was performed. The result was the immediate establishment of bilateral homonymous hemianopsia, which persisted during the whole time that the monkey was kept alive. Objects so placed that their images fell upon the left half of the retina were not noticed. A raisin fixed to the end of a long stick, held from behind, so the holder was not observed, and then moved from right to left at a convenient distance from the monkey, was not noticed till it had passed the mesial vertical plane, when it was instantly seized and eaten, etc."

"In another monkey we removed both occipital lobes at one operation. The result was total and persistent blindness. The animal could only find food by groping and smelling, and when frightened would dash head-long against whatever object happened to be in the way. Placed in a dark room, it gave no signs of perception when a bright light was flashed in its face. Hearing was very acute, and all the other senses besides vision appeared unimpaired. When the animal was killed, several months later, the angular gyri were found perfectly intact, and all the parts looked fresh and healthy."

The Temporal Lobe and the Sense of Hearing.

Continuing the report of his experiments, Dr. Sanger Brown says:

"Ferrier and Yeo state that 'destruction of the superior temporo-sphenoidal convolution on both sides causes complete and permanent loss of hearing, without other sensory or motor defects. Hearing is not impaired by lesions of any other part of the temporal lobe'."

The experimental evidence in support of the above statement appears to have been that electrical stimulation of this gyrus produced movements of the opposite ear, and that destruction of both gyri in one monkey appeared to produce deafness.

As it did not appear to us that the conditions necessary to a reliable conclusion had been fairly fulfilled in this individual case, we more or less completely destroyed in six monkeys the superior temporo-sphenoidal convolutions on both sides. In one or two instances small shreds of gray matter belonging to the convolutions were found post mortem; but, as even in these the part had been deprived of the medullary centre, the removal in all six may be regarded as complete. In one large female Rhoesus we separated the fissures bounding the convolution and scooped it out to the very bottom on both sides of the brain. These two, as well as all other animals with the lesion, even immediately after the operation, as soon as sufficiently recovered from the anesthetic, reacted to slight sounds, such as the crumpling of dry paper or smacking of the lips. These two animals with the more extensive lesions were kept alive for several months, as were some of the others, but none at any time showed evidence of impairment of the auditory faculties, or, indeed of any of the special senses.

These experiments have certainly been very thorough, and therefore satisfactory. It will hardly be claimed by any one that they

settle the question of the functions of these localities one way or the other. They teach a valuable lesson, however, and that is that the last place in the world to jump at conclusions is concerning the results of experiments on the cortex cerebri. This being true, there is the same caution necessary in our observations of the symptoms and pathology of diseases of the human cortex cerebri.

* * *

Dr. Landon Carter Gray reported in the Journal of Nervous and Mental Diseases, Sept., 1886, an interesting case of lesion of both temporal lobes, without word deafness or deafness. In conjunction with his case he cites one in entire accord with it, reported by Professor Westphal, reported in the Berliner Klinische Wochenschrift, Dec. 1st, 1884.

The lesions were extensive in both instances, and yet no evidence of disturbance of the functions referred to these convolutions, namely the mental reception of sounds.

* * *

At the St. Louis Medical Society in April, 1887, there was presented a beautiful pathological specimen of a cerebral abscess, involving the left temporal lobe. Unfortunately the case had not been carefully enough observed to determine whether there had been any auditory symptoms or not. A member remarked at the time that the region involved was the psychical auditory centre, and that if the patient had heard with the opposite ear there was nothing in cerebral localization. Another member criticized this statement as putting the case too strongly, for the reason that the location of the auditory functions was not based on as satisfactory evidence as that of the location of other functions. The correctness of the criticism would seem to be well confirmed by the above experiments.

Hallucinations of Hearing.—Dr. J. Alban Kite, Nantuckett, Mass., reports in the *Boston Medical and Surgical Journal*, Aug. 2nd, 1888, the following:

A case recently came under my care, presenting hallucinations so peculiar as to warrant their being recorded. Mr. E., over eighty years of age, with the exception of deafness has retained his faculties to a remarkable extent (deafness $^1/_{40}$.) Until the last few years he has led an active public life. He has been temperate in all things save mental activity. A few days prior to my seeing him, he was one evening startled by a loud rapping on the window. He arose to ascertain the cause, when the sound was repeated on the opposite window, and followed by a shrill derisive laugh. His wife on being questioned assured him there had been no noise. On returning, the same performance was repeated, save that there were two actors, a deep bass voice having come upon the scene, and a lively discussion was carried on between the two. The fourth night two female characters, or rather voices, presented themselves. The various events of the day were discussed, in which all seemed to take a lively interest; but what seemed strange, their conversation was flavored with such laxity of speech, that Mr. E., although assured that the condition was purely subjective, felt very uncomfortable with his wife sitting beside him.

These debates lasted for several evenings, and interested Mr. E. not a little. About 9 P. M. they adjourned, and did not again appear until the next evening, when reinforced by other members of the same troupe they announced their presence by singing "Home, Sweet Home," without an error. This was followed by several solos and the concert was kept up until after midnight. The number of these little creatures of his imagination increased from day to day as did the variety of their duties. They visited him in the daylight; followed him in his walks; called to him from doorsteps, windows, and from behind trees.

Mr. E. never saw these creatures, but knew each by his or her voice. Those who first appeared never failed to pay him a visit during the day. Not one, however, assumed the voice of a friend. Under what, I trust, was appropriate treatment, although the number of voices remained the same they

had less and less to say, and more time elapsed between the visits, until, I think, the sixth day of treatment. All met in the evening and after a quiet and peaceable gathering, dispersed, their exit being accompanied by a drum-corps: the latter in Mr. E.'s own words, "seemed to beat a retreat." Three weeks have elapsed with no return.

Mr. E. is perfectly sane. He has, so far as I have ascertained, no organic disease, save a slight cardiac valvular insufficiency, and the deafness which is due to lesions in both internal ears. He is in the best of spirits, but occasionally suffers from epistaxis, and, at night fall, finds his ankle slightly swollen. Whether these hallucinations are the resultant of abnormal cerebral circulation and irritation of already diseased aural ganglia or sensory nerves, I am ignorant. The treatment was with the bromides. Mr. E. has told me the substance if not the exact words, of conversations he had had with Daniel Webster, and can give last week's stock quotations as accurately as any financier. His opinion is often asked on various subjects, and results have shown his good judgment. I know of no one whose calm reasonableness is more to be depended upon, nor have I seen this latter condition departed from him.

A Case of Fatal Epilepsy in an Adult.

The *Brit. Med. Jour.*,(July 7, 1888,) contains the following:

"On April 13, 1888, I was called to Albert A., aged, 43, a mason. He had always been perfectly healthy but had complained of pain, in the head and giddiness for the past few weeks. He had never had a fit of any kind before, and was very intelligent. On the day named he had first had his dinner at midday, went out of doorc to resume work, fell down insensible, was picked up and was immediately sick. On my arrival about an hour and a half after the attack I found him perfectly unconscious, pupils no larger than normal but entirely unaltered by exposure to light, face pale with a clammy perspiration over it; hands warm but slightly clenched, arms, legs,and body quite rigid,and feet very cold. I had him carefully removed home a distance of about half a mile, put to bed, heat to feet, and tried to administer stimulants (ammonia), but the act of doing so brought on fresh convulsions, when the breathing was stertorous with slight foaming at the mouth. When I left he was quiet and seemed likely to fall into a gentle sleep, but convulsions returned in rapid succession, and he died from exhaustion five hours after the onset of the attack. The respirations increased in frequency during the attacks, but were tranquil between them. During a convulsion the pulse became very weak, but regained power between them, but was weaker with each attack. My prognosis was guarded; if attacks ceased he would recover, but otherwise would sink from exhaustion, and the latter proved to be the case.

Would not this be a case of death in the status epilepticus which Bristowe mentions as a rare termination; and was it not strange that the patient had never before shown any symptoms of this disease? His father and several brothers and sisters had died in fits.

Herbert V. Rake, M. R. C. S.
Fordingbridge, Eng.

The Hot Bath in the Treatment of Sleeplessness.

Mr. S. Eccles, in the *Pract.*, states that to secure sleep by means of the hot bath, the following precautions have to be attended to: The bath-room must be heated to about 70° F., then the patient must be stripped in the bath-room, the head and face first being rapidly douched with water at 100° F. By this means the body is cooled, whilst a rush of blood is sent to the head. Then the whole body, excluding the head and face is immersed in the bath at 98° F., rapidly raised to 105° or 110° F. In about eight to fifteen minutes the patient feels a sensation of pleasant languor, when he must be wrapped in warm blankets, and proceed to the bed room with as little personal effort as possible. By the time the bed-room is reached the mois-

ture on the surface of the body will have been absorbed; the patient must then put on his night-clothes and get into bed, lying with the head raised, hot bottles to the feet and well covered with bed-clothes. No conversation or moving about the room should be allowed, and all light must be excluded. In a few minutes the patients will be found in a quiet, refreshing sleep. The theory of the method is based on the sudden exposure of the body contracting the arterioles of the skin, causing thereby a corresponding dilatation of the vessels of internal organs, which in the case of the brain is further induced by the application of hot sponging. The immersion of the whole body next causes a dilatation of the vessels of the surface, except the head and face, with contraction of the vessels of the brain and gradual slowing of the heart's action, thus placing the brain in the most favorable condition for complete functional rest. There are certain conditions, however, in which this method is contra-indicated. Persons suffering from anemia or emaciation, or from aortic valvular disease,or in whom signs of atheroma are recognized, should not be subjected to such rapid variations of local arterial tension as this process entails. In such cases massage may give good results.

Case of Acute Meningitis.

At the meeting of the Boston Obstetrical Society, March 10, 1888, Dr. Hosmer reported a case of acute meningitis. The following are notes of an autopsy made five hours post-mortem March 8, 1887, by Dr. J. A. Mead: Bloodvessels of the pia and cortical substance injected, and clots in the vessels of the former. Both hemispheres presented a dull and glazed appearance, and their convolutions were adherent; between the two hemispheres, also, there was some adhesion. Fissure of Sylvius was closed. No tubercles at base of brain. No pus. Other organs normal.

The patient was a girl nineteen months old. She had thirteen teeth, the last one cut being the left canine. In the summer of 1886 she had a diarrhea,which was not very severe, but rather persistent. Otherwise the child had been a healthy one. During the night before her death she had been less quiet than usual, but her mental condition was perfectly normal. She was playful and bright until 6.30 o'clock, when there was a slight convulsive action. Consciousness was perfect until an hour later, from which time the symptoms became alarming. Death occurred at 12.30, six hours after the first significant symptom appeared.

Very early in the case laryngeal obstruction had become so marked that the family and neighbors supposed it to be an attack of croup, and with that idea sent for Dr. Hosmer. The absence of headache and of distinct nausea and vomiting should be noted. At 9 o'clock the temperature was 106.3° F. At 10 it had risen to 107.6° F., a very high temperature. At 11 it had fallen to 105.4°.

For a moment, the influence of some infection was suggested by the remarkable temperature which speedily attended a sudden and severe attack, but that suspicion was soon abandoned. That it was not extremely absurd is shown by a case reported by a German authority, in which scarlet fever was supposed to exist. While the appearance of the eruption was anxiously being waited for, death overtook the child. An autopsy made a diagnosis of acute meningitis.

Etiology and Treatment of Tetanus.

M. A. Rust, M.D., Richmond, Va., says: Sometime ago the supposition arose that tetanus, like other calamities which befall the wounded, was the result of the action of an organism from without, particularly from dust and dirt. In 1884–85, Nicolaier, with the cooperation of Fluegge, succeeded in discovering this organism in common earth. The organism, being rod-shaped, is a bacillus, not a coccus. Out of eighteen specimens of dirt, fetched from far and near, from forests, fields, gardens, roads, streets, yards, floors, etc., inoculated into rabbits, Guinea pigs and mice,

twelve specimens produced tetanus in those animals. Cultures of these bacilli likewise produced tetanus seventy-two times out of eighty-one inoculations. The time of incubation is from two to five days. Pure cultures have not, till now, been obtained. The bacilus of tetanus is always met in company with various species of cocci of suppuration and bacteria of putrefaction. Rosenbach, in 1884, succeeded in transferring tetanus from man to rabbits, Guinea pigs and mice. Cultures of these bacilli, through many generations, likewise produced tetanus. From these cultures, Brieger (in 1886) extracted an alkaloid or ptomaine, to which he gives the names of tetanin. It has the formula, $C_{13}H_{30}N_2O_9$. Injected into the tissues of live animals, this alkaloid produces all the phenomena of tet anus.

Unlike the micrococci of septicemia, etc., which invade the whole body, and are found in distant organs, the bacillus of tetanus is only met within, at and around the original wound; it does not invade the whole body; matter for inoculation must be taken from this wound; when procured from other organs, from muscles, nerve trunks, spine, etc., it proves ineffective.

These are the facts; at present they only rest on experiments upon animals, and leave our bacillus of tetanus, for the time being, with a somewhat problematic character. He has still to strive for that public recognition which is universally bestowed upon others of his fellow-microbes, on bacillus tuberculosis, bacterium anthracis, micrococci of suppuration, etc.

As no invasion of the body ensues—as the formation of the poisonous alkaloid, out of the elements of the albumen of the tissues, only takes place in the original wound whence the poison is absorbed—we should conclude that this poison called tetanine would be the sole originator of tetanus. On the other hand, as it appears that this poison never forms without the presence of the bacillus, the claim of this microbe to the authorship of tetanus is worthy of consideration.

Before a final conclusion can be arrived at, two conditions must be fulfilled—1st, the respective researches and experiments made by the few must be confirmed by the many; 2d, it must be shown that wherever there is tetanus, there is the bacillus also, just as was proved in regard to tuberculosis, splenic fever, suppuration, etc.

Now, supposing these proofs adduced—as in all likelihood they will be ere long—the pathology of tetanus will not find itself enriched. In none of the animals which succumbed to tetanus could any anatomical lesion or alteration be found. We may perhaps gain a negative advantage by the relinquishment of sundry theories, as "ascending neuritis," and the like, and regard tetanus as the result of an alkaloid poison. In a distant future, advanced chemistry may discover the antidote capable of following the trail of the direful poison. In the near future, however, in whose ante-chamber we are, standing, we shall have recourse to the means, into which all materia medica is fated to resolve itself—prevention!

Antipyrin and Thermogenesis.

Doctor Donald MacAlister, in one of the Croonian lectures on antipyretics, before the Royal College of Physicians, June 1888, said:

Dr. Girard, of Geneva, whose investigations on the thermogenic functions of the corpus striatum had been mentioned, had induced pyrexia by stimulating that body, and found that a subsequent dose of antipyrin was able to reduce the temperature and to keep it down for a time. He had also first given antipyrin, then stimulated the thermogenic region, and found that the temperature still rose but to a less extent. These results though suggestive and interesting, were not conclusive as to the effect of the drug on heat production, for, in the first place, the rise of temperature obtained was not very great, and in the second place, the experiments were thermometric only.

The calorimeter must be used to determine whether the heat actually produced in fever was diminished by antipyrin. Drs. Wood and

Hare had turned their attention to this point, and though their results were at present somewhat incomplete, and labored under certain outstanding difficulties of interpretation, they appeared to show that heat production was lessened by the drug. The fever they had tested was induced by injecting a "pyrogenic" agent, especially an albumose derived from certain specimens of pepsin.

Dr. Hare had tested antifebrin on animals suffering with this artificial fever with a similar result. It should be added that in the experiments in which they obtained a reduction in the rate of heat production they also observed a diminution (though a smaller one) in the rate of heat loss. Dr. Wood had, moreover, assured himself that the result was apparently unaccompanied by any measurable effect on the circulation, at least where antipyrin was given in therapeutic doses.

Note on the Pathology of Epilepsy.

In a recent article M. Marie (*Le Progres Medicale*, April 21, 1888), drew attention to the relation which exists between infectious diseases and the development of epilepsy.

He maintained that in early life this relationship was that of cause and effect, just as in adult life epilepsy might be occasioned by syphilis or puerperal septicemia. His conclusion was that the domain of idiopathic and hereditary epilepsy, if it really existed, was very much narrower than was generally supposed, and that in almost every case of the disease an exciting cause might be discovered.

M. Lemoine declares himself to be in accord with this statement of opinion, but he goes further and more precisely than M. Marie, stating that in general the cause of epilepsy is some infectious disease, and it appears to him sufficient, even if some months or years have elapsed between the measles, scarlatina, or other form of infection, and the first epileptic seizure.

The infectious diseases of childhood are so general in their incidence that but few escape entirely, whereas the occurrence of epilepsy is relatively infrequent. To this objection M. Lemoine replies that for a general disease to produce sequelæ of nervous derangement, some localization in the nervous system attended with permanent lesion must take place during the primary illness. Syphilis is not always cerebral, and when the brain does suffer, epilepsy is not a constant result. The exact nature of the morbid process by which an infectious disease gives rise to epilepsy is said to vary in different cases. In some, and these are must unusual, the epilepsy commences during the most acute stage of the disease, just when the invasion of the system is completed, and the specific organisms have attacked the nervous centers. The irritation produced by these microbes is sufficient here to produce the convulsions. Most frequently, however, the epilepsy is deferred to a later period when the primary irritation has led to focal lesions of a cicatricial nature.

In formulating this theory, the author admits that he is generalizing upon the well-recognized action of the poison of syphilis, but he asserts that the histology of nerve lesions in other infective diseases gives support to his somewhat startling proposition. Infective-lesions here referred to always, it is said, present the same distinctive characters. They appear as disseminated patches, formed of embryonic tissue, in the midst of which colonies of microbes are found, for the most part clustered around the small blood-vessels. The morbid process terminates in two different ways. Either the patches undergo complete regression, leaving no trace of their previous existence, or they excite interstitial changes in the surrounding tissue, and are gradually replaced by the cicatrices. Such are the nerve lesions involved in the course of tuberculosis, syphilis, diphtheria, and very probably also, M. Lemoine adds, in small-pox measles, scarlatina, typhoid, and other infectious diseases. Infantile paralysis, it is stated, presents a myelitis of the same character, and with M. Pierret, the author believes this disease to be of an infective nature, and that a large proportion of the cases of epilepsy in children are consecutive to

this disease, and due to its specific lesions. It appears, then, that not only epilepsy but trophic neuroses may, according to the seat of lesion in the nerve centers, result from septic agency, and those frequent cases where, during childhood, epilepsy is combined with paralysis or asymmetrical development of the bones and muscles, infective disease localized in part in the nervous centers, is, in the author's opinion, most commonly the fons et origo mali.

That a child may be born epileptic he admits, the cause of the epilepsy being some intra-uterine disease, but he denies that the neurosis can be purely hereditary in any case. Heredity, he allows, has only a predisposing influence.

Affections of the Heart in Tabes Dorsalis.

Influenced by the statements which have been made, to the effect that diseases of the heart, particularly of the aortic valves, were very liable to occur in tabes, and were in some way connected with it, Groedel (*Deutsche Med. Wochenschrift*, 1888, 397) has during the last seven years examined his cases with special reference to this feature. In one hundred and eight cases of this disease he found but four instances of valvular heart disease, and in none of them was there reason to believe that it was at all dependent on the tabes, and he concludes with Leyden that the occurrence of valvular lesions is purely accidental. He has never in this affection seen an instance of a diastolic murmur produced by irregular muscular action, as Angel has supposed. On the other hand, he has frequently noticed the occurrence of weakness and frequency of the heart's action, small pulse, palpitation, dyspnea on exercise and sometimes, even, when at rest, but even these are not characteristic of tabes, and are liable to occur in any form of chronic disease accompanied by anemia or neurasthenia. There may be a sense of oppression or of pressure in the region of the heart, which is probably to be classified as an irregular form of girdle sensation. Leyden has recently reported four cases of tabes in which there occurred peculiar attacks similar to those of angina pectoris, and Vulpian has also recorded a similar case. Groedel reports two such cases, as well as a third, in which, however, there was also hypertrophy of the heart and nephritis. It is very possible, as Leyden believes, that these attacks are directly connected with the tabes, and are neuralgic affections of the cardiac branches of the vagus; just as the gastric, laryngeal and bronchial crises represents a similar disorder of other branches of the same nerve.

Analgesic Use of Antipyrin.

Gunther (*Deutsch. Med. Wochenschr*, May 17, 1888, p. 406) has made much use of a thirty to fifty per cent solution subcutaneously. In a case of fresh fracture, an injection made at its seat, deep into the tissues, enabled him to apply the first apparatus without the slightest muscular contraction. It has been of great service in laryngeal phthisis with cough and loss of sleep.

Berdach (*Wiener Med. Wochenschr.*, 1888, No. 11) says a fifty per cent solution in distilled water is adapted to all painful conditions. The effect appears in a few seconds and lasts at least six hours.

Antipyrin in Chorea.

Additional contributions on this point will be found in the *Ther. Mon.*, April, 1888, pp. 177 and 191, and May 1888, p. 249. Though the cases are few the observers agree as to the benefit of the remedy. In a child of eight, gr. viij have been used. One reporter has used a 50 per cent solution subcutaneously, beginning with half a syringeful and increasing to two in 24 hours.

ORIGINAL ARTICLES.

SOME PRACTICAL POINTS IN OPHTHALMOLOGY.

BY R. L. THOMSON, M. D.

In cities where ophthalmologists can be seen readily the general practitioner rarely has occasion to examine the vision of a patient. He simply refers such cases to some one who devotes his time to this special work. It is quite different, however, in towns and country districts; there the family physician must assume the responsibility of treating such eye cases as come under his care, or decide whether or not the patient shall consult a specialist in some neighboring city. It is obviously to the interest of both that the physician should be able to advise his patient intelligently.

It is a noteworthy fact that the simple methods of examining these cases are not taught in the medical colleges, and as a consequence many cases come under the care of ophthalmologists that have long been neglected. Only a short time since a patient was brought to my office, who had been seeking an opportunity for ten years to learn whether or not her sight could be restored. She had consulted all the physicians in the vicinity of her home, but not one was able to advise her. Had any of them known how to apply a simple test (which I shall describe in this article) they could have saved her a long and wearisome trip to St. Louis, which she could ill afford.

A patient who has lost all perception of light cannot be benefited by any surgical interference. The way to determine whether this condition exists or not is to place the patient in a dark room, light a single candle, cover one eye so as to admit no light to it, allow the light to shine directly on the uncovered eye, place the hand between the candle and the eye and remove it; do this several times, and if the patient has perception of light, he will be able to tell each time the light shines on his eye and when it does not. If he is unable to tell the light of the candle from the darkness then he has lost all perception of light. If it be found that he has perception of light then continue the test by having the patient hold his uncovered eye straight, as though he were looking directly forward, exclude the light from the eye by means of the hand, place the candle so that the light will shine on the eye from above, ask the patient to hold his eye perfectly still, and tell you the direction the light is from the eye. Exclude the light and place the candle so that the light will shine on the eye from the inner side, repeat the question as before; proceed in like manner, placing the candle below and to the outer side. Continue thus excluding the light and changing the position of the candle till you are thoroughly satisfied as to the ability or non-ability of the patient to locate the candle at each point. The question should be "Can you see a light?" and not, "Can you see the candle?" This is called "testing the field of vision." It cannot be made in open daylight. It is not uncommon to find patients that are "stone blind" who are very confident that they can tell light from darkness. No matter how ripe the cataract may be the patient should be able to locate the light readily.

Ripe senile cataracts can usually be recognized at once by the grayish or whitish reflex from the pupil which ordinarily is black. By focusing the daylight, or better, artificial light in a darkened room, by means of a two inch lens, on the lens in the eye the cataract can be distinctly seen.

Having decided that a patient has cataract, the next step is to determine whether or not it is a suitable case of operation. If a patient has cataract in but one eye, the other having normal vision, or even vision enough for his needs and comfort, it is probable that extraction of the cataractous lens would interfere materially with the patient's comfort, as the two eyes could not be made to work together, and he would be forced to cover one while using the other to avoid confusion. Ophthalmologists, however, differ on this

point, some holding that a cataractous lens is in a measure a foreign body in the eye and should be removed.

If a patient has a cataract in each eye and his vision is reduced so that he cannot comfortably make his way about, or if he is dependent upon his sight to supply his daily needs and has not vision enough to earn his living, then as soon as the vision in the worst eye is so reduced that he can not count fingers at six inches, the lens in that eye should be removed, provided, of course, the "field of vision" is perfectly good. In exceptional cases it is well to operate much earlier. Patients get too weak to undergo any kind of an operation, but no one ever gets too old to have their sight restored by cataract operation. It is a coveted pleasure of the aged who are blind from cataracts to see their friends again before they pass to the unseen world, and that pleasure should be granted them if circumstances admit of it.

It is rare that any anesthetic other than cocaine locally is used for cataract extraction. There is rarely any pain.

On an average it takes about three weeks for an eye to recover after the lens is removed. During this time the habits of the patient should be disturbed as little as possible. It is necessary that he shall be under the daily supervision of the surgeon.

When the lens of an eye has become thoroughly opaque, as is the case with ripe cataract, the vision can be restored in no way except by a removal of the lens, that is, by cataract operation.

About ninety cases out of every hundred operated upon, recover useful vision. There are one or two chances in a hundred that the eye may be entirely lost. Death of the patient so rarely occurs that it need scarcely be considered. Of the last one hundred cases reported by Dr. Knapp, of New York, ninety-nine recovered useful vision, one eye being lost by an intercurrent trouble.

The skill required to perform this operation and its importance places it among the capital operations of surgery. The usual fee is from one hundred and fifty to three hundred dollars, varying according to the nature of the case and to the circumstances of the patient.

Some of the readers of the Review will perhaps say that the instructions herein given are to be found in the standard works on the eye, and that it is a waste of time and space to insert them here, but it should be remembered that the majority of practitioners have no such work in their library.

It is detrimental to all concerned for a patient to be brought a long distance only to learn that nothing can be done for his relief.

BOOK REVIEWS.

Rectal and Anal Surgery, with a Description of Secret Methods of the Itinerants, by Edmund Andrews, M.D., LL. D., Professor of Clinical Surgery in Chicago Medical College, Senior Surgeon to Mercy Hospital, and E. Wyllys Andrews, A.M., M. D., Adj. Professor of Clin. Surgery in Chicago Medical College, Surgeon to Mercy Hospital. Chicago, N. T. Keener, 96 Washington Street, 1888.

We have before us a book on Rectal and Anal Surgery by Andrews. The work is well written and will be a valuable handbook for physician in general practice. We think that the remarks and statistics on injection of hemorrhoids with carbolic acid timely and valuable, and suggest to the physician that what appears to be a simple operation is one that may be followed by grave results. The chapter on anal fissure we think misleading as to treatment, for it is often impossible to get even simple ulcers about the anus to heal unless the sphincter muscle is put at rest either by dilatation or cutting. But the book will be found interesting, and many hints as to diagnosis and treatment may be gained from it.

Dr. W. Wylie, of England, reports a case of entire absence of both mammary glands in a woman aged twenty-one. She gave birth to a healthy male child. Cases of multiple mammæ have frequently been reported, but so far as I know the above case is unique.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, AUGUST 25, 1888.

HEALING OF WOUNDS IN HIGH ALTITUDES.

Dr. W. N. Sherman, of Arizona, who has had an experience of eight years in practice in several localities in the Rocky Mountains, in the Territories of New Mexico and Arizona, says (*Med. and Surg. Reporter*, Aug. 11) that wounds of all degrees heal more kindly in those sections than do similar wounds east of the Mississippi river.

He is an advocate of the germ theory, and attributes the absence of suppuration in his section of country to favorable atmospheric conditions. He says:

"It is a fact well known that fresh meat, cut and dried in the hot sun, cures without becoming tainted. This 'jerked' meat enters largely into the summer diet of many of the inhabitants of this country who live away from the markets. It is said that the spores of the microbe are so universally distributed through air, earth and water, that their exclusion from the human body is almost impossible. Moisture and warmth are conditions favorable to their growth and development. They require a moist surrounding in order to multiply, and, after removal of these conditions which favor their growth, their spores are carried through the atmosphere and thus contaminate the human body. Beale says (Microscope in Medicine) in a dry atmosphere the living bacterium would soon shrivel up and its life would be destroyed, it, as a living body, containing a large amount of water. On the other hand, the germs of bacteria may exist in countless multitudes in the atmosphere, and these under favorable circumstances will germinate and the resulting bacteria grow and multiply. Further, we know that a moist medium is required for the culture of these microbes and bacteria. In these elevated regions the atmosphere is extremely dry, and the earth is also warm and very dry, there being scarcely more than ten days in the year in which the ground is continually moist."

Dr. Sherman thinks that frontier life renders men less liable to succumb to serious injury. Unquestionably the mind has much to do with the recuperative processes of the body in cases of injury, but the superior scientific application of remedies "east of the Mississippi" will fully counterbalance this advantage. As remarkable recoveries take place in the East as in the frontier country.

He says the aborigines dress their wounds with dirty, greasy rags, or bathe them in dirty water, and yet their wounds seem to heal as kindly as if treated antiseptically.

There are few who have not observed how much more readily wounds in the lower animals heal than those in man. Perhaps this may in a measure account for the above, as the aborigines seem but a remove from the lower animals. We know that the lower in the scale of civilization we go, the less pain females have in giving birth to children.

In an article in last week's REVIEW Dr. Fairbrother states that cellulitis frequently follows injuries of the hand when dressed in "waste," whereas in cases in which the wound is dressed antiseptically from the beginning such a result very rarely follows.

A SUBSTITUTE IN SELECTED CASES FOR ENUCLEATION OF THE EYE BALL.

Dr. Charles Bell Taylor says (*Brit. Med. Jour.*) when an eye is crushed, contains a foreign body or neoplastic growth, or belongs to a patient who cannot be trusted to take care of himself, or to return when threatened with sympathetic ophthalmia, it is best to remove it. If, however, although sightless, the eye is a good-looking organ, and only af-

fected with neuralgia or recurrent inflammation, or belongs to a patient who refuses to have it enucleated, then it is best to excise a portion of the optic nerve.

Dr. Bell has resorted to the latter operation in thirty-one cases, and "with the most gratifying results."

We regret that these cases are not given in detail, as the operation of opticociliary neurotomy has very few staunch advocates at the present time. It may be that the good results obtained by Dr. Bell were due to a removal of a section of the optic nerve, or perhaps he divided the tissues more thoroughly than did some who met with less success.

Reflex Influences in the Production of Naso-Pharyngeal Catarrh.

Dr. Albert H. Buck (*Med. Rec.*) enumerates some of the indirect causes of inflammation of the lining membrane of the nose and pharynx that have occurred in his practice. His experience has been similar to that of others in that he has found that chilling of the surface of the body is by far the most frequent cause of this trouble. He says that while in cases of gastro intestinal irritation accompanied by inflammation of the naso-pharynx the relationship between the two is not distinct or clearly defined, it now and then happens that by close observation the patient is able to connect the two as cause and effect. Dr. Buck cited a case in which a gentleman, fifty-four years of age, observed that when he ate certain articles of food he had abdominal disturbance accompanied by a marked exacerbation of his naso-pharyngeal catarrh. Patients who have chronic gastro-intestinal catarrh frequently have a red and swollen condition of the faucial mucous membrane.

In another case Dr. Buck found that a naso-pharyngeal catarrh that had persisted for years was relieved by correcting a retroverted uterus. He asks the question: Are not the reflex influences above referred to sufficient to act as direct causes in the production of naso-pharyngeal catarrh? He is inclined to this opinion but since it cannot be demonstrated as a fact, he prefers to give them as indirect causes.

In these cases much depends upon the general condition of the patient. That which will produce an acute nasal catarrh in one individual will in no wise affect another. Except the uterus, there is no organ in the body the diseases of which are treated by specialists, that is so dependent upon the general condition of the patient. It is certainly highly sensitive to reflex influences. Children who have intestinal worms "pick at their noses," and not infrequently have nasal catarrh. When an acute catarrh follows the exposure of a foot or an arm while the patient is asleep, it is purely the result of reflex irritation.

Notes on Genito-Urinary Surgery.

Dr. L. D. Thurston recently reported to the North Texas Medical Association the history of a case of perforating ulcer of the bladder. It occurred in a female, the first symptoms showing themselves shortly after a fall, in which she alighted on the sacrum. Irritability of the bladder, rendering the patient unable to retain more than an ounce of urine for any length of time, excruciating vesical pain and tenesmus, progressive emaciation, absence of fever, freedom of the urine from abnormalities, either microscopical or chemical—none of the usual signs of catarrh of the bladder being found—were the prominent symptoms.

Other methods of treatment having failed to give relief, the one advocated by the reporter—that of making an artificial vesico-vaginal fistula for continuous drainage—was performed, but, on account of objections raised by others, not in time for it to have the desired effect. The patient died in April, 1887, after an illness of three years and a half. The autopsy revealed "a perforating ulcer in the bladder, closely resembling a bullet-hole, whose points of entrance and exit would be the inner and outer walls, respec-

tively, of the organ. The ulcer was circular in form, its inner opening being about the size of a twenty cent piece, its outer that of a half dime. The outer opening was shut off from the peritoneal cavity by the omentum, which had, by adhesive inflammation, adhered to the bladder walls for some distance beyond the margin of the ulcer. The latter was somewhat ragged and markedly gangrenous. The bladder was concentrically hypertrophied; there was no evidence of inflammation such as is found in cystitis, nor were there any signs of peritonitis. All other organs were normal."

No mention is made of an examination with reference to the presence of tubercle bacilli in the ulcerating tissues.

This is true also of the report of a case of perforating ulcer of the bladder, made by Bartlett, in the *London Lancet*, Feb. 5, '76. To be able to say positively that the bacillus mentioned does or does not bear any causal relation to the affection is of importance, especially as an aid to diagnosis.

The operation of catheterizing the ureters, considered at one time as merely a feat in 'surgical gymnastics,' promises soon to become of comparatively easy and frequent accomplishment. For the purpose of differential diagnosis in suppurative conditions of the urinary tract, or where a nephrectomy is under advisement and it is desired to ascertain the health of the other kidney, etc., information by this means is, of course, invaluable.

Dr. Iversen, of Copenhagen, has successfully catheterized the tubes after supra-pubic cystotomy, and a contemplated nephrectomy was found to be contra-indicated on account of the extent of involvement of both kidneys. The vesical wound healed without detriment to the patient.

But Reginald Harrison proposes a method of access to the ureters even simpler than that. Its use is confined, however, to cases in which the natural valve-like arrangement for preventing retrogression of fluids from the bladder is destroyed, as in cases of urethral or prostatic obstruction, where from dilatation the ureter and pelves of the kidneys become, as he says, merely subsidiary bladders.

In such a condition, distention of the bladder, followed by pressure on the same, readily sets up the desired communication, distends the tube, and if a calculus be lodged at any point therein, it will drop into the portion of greater calibre, rolling quickly thence into the bladder. In this manner renal calculi were removed from the ureters of three different patients, without ill results, by Mr. Harrison, who even hints at the possibility of its performance through a healthy ureterovesical orifice. Pelves of suppurating kidneys may be washed out in the same way.

Saenger, of Berlin, in searching for the cause of the great mortality in nephrectomy, after experimental investigation on the subject with animals, has arrived at some conclusions that, if confirmed by clinical practice, will prove of great importance. He asks the question, why is it that the remaining kidney, having previously performed the labor of both organs successfully, should, after the operation, prove functionally incompetent? Experimentation makes answer, antiseptics.

After removing a kidney in rabbits and mice, they were given various antiseptics in doses, an eighth, tenth or even a twelfth of what they could support under normal conditions.

As a constant result, he found in examining the remaining kidney processes of exudation and granular degeneration of the epithelium more marked in the cortical than in the medullary substance, all presenting the same character of acute cellular necrobiosis, whatever kind of antiseptic employed, corrosive sublimate, iodoform, carbolic salicylic or boric acid. Other organs were also the seat of this degenerative process.

If then, these antiseptics could provoke in such small doses and in healthy animals the alterations mentioned, their noxious influence

must be much greater on affected organs, and on those of more complicated construction of human beings !

In a paper submitted to the Academie de Medecine by Dr. Dezanneau, surgeon in chief of l'Hotel-Dieu d'Angers, the author gives the result of his observations relative to the possible transmission of syphilis by heredity to the second generation. He believes that syphilitic heredity can determine in the second generation accidents of the same character and gravity as in the first.

This is in direct opposition to Hutchinson, who says: "No trustworthy evidence in support of the suspicion that the subjects of inherited taint can in turn transmit it to their children at present exists."

Dr. John H. Girdner bases his claim that his is the only rational mode of treating strictures external to the deep urethra, on the accepted law of nature that pressure over any part causes its absorption. Acting on this fact, instead of performing internal urethrotomy, which entails subsequent cicatrization and contraction—divulsion, rapid dilatation and all the other methods causing traumatism of the urethral wall, having the same objections—he allows the steel sound to remain engaged in the stricture for five minutes or more, during which he makes gentle but firm pressure around the penis over the seat of the stricture. Under the influence of this massage-pressure plan of treatment, Dr. Girdner has observed the gradual and steady disappearance of the tumor-like mass of stricture tissue. Relief has been attained in his cases of two, three and five years' duration.

For strictures deeper than the penile portion, where the loose cellular tissue surrounding the urethra gives no basis for counterpressure, he performs external urethrotomy.

Mr. Southam, assistant surgeon to the Manchester Royal Infirmary, advances a very practical idea in the treatment of hematuria, originating from growths in the bladder. When the attention of the surgeon is called to the case, the patient is usually so much exhausted from the continued loss of bloed that he would be unable to stand a radical operation, contemplating the extirpation of the tumor. Mr. Southam therefore advises that a preliminary perineal cystotomy be made for the purpose of stopping, at least temporarily, the bleeding, by means of local treatment and especially drainage. This gives the patient opportunity to regain lost strength.

The author reports a case in which this plan was carried out with the happiest result.

He believes that the important factor in the production of bleeding in these cases, as of papilloma, is the contraction of the muscular wall of the bladder, thereby interfering with the venous return from the growth, causing congestion and rupture of the vessels. By continuous perineal drainage of the urine, the necessity for bladder contraction is prevented, physiological rest is attained and the hemorrhage ceases.

A late issue of the *Journal de Medecine de Paris* contains a discussion of some interesting, if unscientific, theories concerning the "Art of Determining the Sex in Procreation." The correctness of each view is affirmed by repeated successes in endeavoring to control the sex of the unborn by carrying out directions based on the respective beliefs. Some say that the secret lies in the time, with reference to the menstrual period, that copulation takes place; a female is produced when there is sexual congress just preceding menstruation, and a male when it follows the period. The result of connection midway between two periods is not explained. Others rely on ligature of one spermatic cord to prevent the escape of germs from the testicle of that side which would generate an undesired sex, the male residing in the right.

Dr. Buzareingues asserts that a feeble and debilitated woman fecundated by a vigorous man will bear a male, and vice versa.

M. Millot, accoucheur of the princesses of France, 1728-1811, in his "Histoire complete de Generation," cites many instances of his

unfailing ability to put the said princesses in the way of obtaining a longed-for boy or girl, as the case might be. He gave the following as the basis of his directions, that the woman should lie inclined to the right side if a boy were desired. That the inner portion of the uterus is divided from above downwards by a muscular band, which in copulation becomes turgescent and divides the uterus into two halves, the right and left. It is the habit of spermatozoids to ascend in their progress toward the ovaries; therefore, if the inclination were to the right, the left side of the uterus would be traversed, calling into action the function of the left ovary, from which males only are derived.

The experience of Venette, a French physician and author, has confirmed in many instances the position last taken.

BRANSFORD LEWIS.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

The following paper has been added to the programme of the Mississippi Valley Medical Association meeting: "Yellow Fever," by Dr. C. G. Comegys of Cincinnati, Ohio.

* * *

The new drug Saccharin has been very successfully used as a sweetener for foods appropriate to diabetic patients. So far no objection has been recorded to its use as a sub stitute for sugar in such cases.

* * *

"I argue that as a new race can be obtained in animals and plants, and can be raised to so great a degree of purity that it will maintain itself, with moderate care in preventing the more faulty members of the flock from breeding,so a race of gifted men might be obtained under exactly similar conditions." So says Golton in his work on hereditary genius.

The clear thinking and gifted Dr. E. A. Wood, ex-president of the Pennsylvania Medical Society, upon the subject of "Heredity and Education" very pointedly says: "Man as savage, barbarian or civilized, is an animal and subject to the same laws which govern all animals below him. Whatever methods have improved animals, will, if applied to man, also improve him. It is probable that, if the same system as practiced in breeding fine animals were employed in breeding human beings, the result would be as much greater and better as that man is a superior animal. If a selected class of men and women, or if a nation of people of like but gifted race, were subjected to the same system of breeding as practiced in the case of the American trotting horse, the outcome would surpass the most sanguine expectations. Such a people, after a few generations, would form a distinct and mighty race, as far above their reckless fellow-men, as is the Hambletonian horse above the drudge that drags the plow or cart; as far above our present civilization as we are above the Digger Indian.

All of which is well, so far as it impresses thinking men with the importance of thoughtfully and premeditatingly entering the marital state, but the reason we have so many more hy-brid men and women than high-bred is, that sentiment,heart,unbridled passion and that little merry, meddlesome fair god Cupid have more to do with the "pairing business" than have reason, intelligence and the calm, careful and calculating secretory efforts of the gray ganglia. So it has been from the pre-chaotic period: so it will be probably until the end of time.

The superlatively high-culture tendencies coupled with a growing aversion to child-bearing upon the part of the upper female classes, the procreative abilities of the lower clases, the ignorant, the diseased,the immoral and the criminal, the pointedly prolific pauper element equaled only by the Australian rabbit, will eventually, if not checked by legal enactments, sustained by an aroused public sentiment,result in the development in the world at a not distant date of a rapidly diminishing (numerically) intellectual race of women, brainy but flat-breasted and narrow-hipped. Nates? nil. Ovaries? Lawson Tait could not find them even after one of his

most skilful abdominal sections. Calves? Long since departed in search of more satisfactory pasturage and appreciative owners; their entire anatomy including the heart and all, save a finely organized brain, so shriveled and shrunken as to suggest the mummy, being absolutely impenetrable to the darts of cupid. One might be tempted to ask, had not the state better provide for the castration of male criminals, the senile, diseased and those mentally and physically unfitted for the struggle for existence of the same sex, and so far as the female representatives of the same type are concerned, they should by statute be turned over to the skilful hands of Robert Battey and his followers.

* * *

Among the papers which will be presented to the coming meeting of the Mississippi Valley Medical Association, will be one from our learned laboratorical delver in germs and bacteria, the neurologist alienist and psychologist in whom every St. Louisian takes pride, Prof. Ludwig Bremer, M.D., on "The Uses and Abuses of Electricity." In the discussion of this topic the Lurid and Lucid Lanphear, of Kansas City, will be heard from, also the bright, breezy, brilliant and bold Bauduy, of St. Louis, and the sapient, salient and solid Shaw, as well as the Frank, favored felicitous and faithful Fry, not forgetting the gentle, genial, graceful, gritty and go-ahead Gray, of Chicago.

* * *

The strong and sturdy medical Sage of Carthage, Mo., Robert F. Brooks whom every doctor in Missouri knows and admires, will also read a paper on "Clinical Notes on Rheumatic Neuralgia." A paper from Dr. R. B. Tyler of Joplin, Mo., on "Cholera Infantum," will also be forthcoming, and that the subject will be well handled goes without saying; the fact that it is reported to the committee by Brooks makes it an assuredly good paper.

* * *

An additional paper will come from the pen and brain of Dr. Geo. F. Hulbert, late surgeon in charge of the St. Louis Female Hospital, with the title "Mechanical Obstruction in Diseases and Displacements of the Uterus."

Dr. Hulbert's extensive experience well fits him for the handling of this subject which is of practical value to every busy doctor in city or country.

* * *

Dr. R. M. King, of St. Louis will also read a paper; that it will be terse, pointed, practical, and valuable, goes without saying.

* * *

The subject of uterine disease reminds me that during the past six months I have had my attention drawn to a remedy which goes under the name of "Dioviburnia," the formula of which is given by the proprietors, it being composed of equal parts of the fluid extracts of viburnum pruni-folium, viburnum opulus, dioscorea villosa, aletris farinosa, helonias dioica, mitchella repens, caulophyllum thalictroides, scutellaria lateriflora, (each fluid ounce contains ¾ dram each of the fluid extract).

The proper dose is for adults from a dessert to a tablespoonful three times daily after meals.

In urgent cases with much pain it should be given every hour or two in a half glass of hot water. I am free to say that with the exception of the "black haw" (a most valuable remedy) I was not familiar with the component parts of the "Dioviburnia," but having read the very emphatic endorsement by Drs. J. B. Johnson and L. Ch. Boislineire, of St. Louis, two of the most eminent professors and practitioners of the city as well as that of Dr. H. Tuholske, I was induced to give the compound a fair and thorough trial, and I am convinced that in dioviburnia we have a valuable addition to our armamentarium in our battle against the enemies of the noblest work of God—Woman.

* * *

Dr. Geo. M. Kreider, of Springfield, Ill., one of the brightest, brainiest, and strongest workers of the Garden State, will present a

paper with the title. "How Micro-organisms enter the Human Body."

* * *

By the way, has any one noticed the fact that in America, everywhere, east, west, north and south, the workers in the medical vineyard belong to two classes, the old and the new, those in the neighborhood of sixty and the younger ranging from thirty to forty. That this is a fact I think no one will deny. The explanation, I believe, is the "Late War". The medical colleges were closed, the professors on both sides were bravely to the front. The "mills" being closed, the "grist" was not turned out. It took two or three years after the war for the schools to get into running order, and this with the four or five years of the fighting period makes up a decade, and so we find all over the country the "old blood" and the "young blood" medical.

* * *

As evidence I cite a few of the leading men in the various cities and states of our country, viz.: Wyeth, Gerster, Bull, Morris, Janeway, Otis, and Allen, of New York City; Belfield, Ingram, Parks, Waxham, Owen, Gray, Miller, Earle, Fairbrother, Pitner, of Illinois; Whittaker, Reed, Hyndman, Conner, Dawson, of Cincinnati; Mathews, Reynolds, Palmer, McMurtry, Dixon, Wathen, McCormack, of Kentucky; Cook, Woolen, Ferguson, Hays, Jameson, Wishard, Stillson, Owen, of Indiana; and Mudd, Carson, Bryson, Fry, Lemen, Bond, Dalton, Mathews, Brooks, Griffith, Porter, Glasgow, Mullhall, Fulton, Lanphear Dusmenil, Steer, Meisenbach, of Missouri; Senn, of Wisconsin; Wyman, Connor, Smith, Walker, and Mulheron, of Michigan; Stone and Vaughn, of Minnesota; Wile and Porter, of Connecticut; Shoemaker, Taylor, Woodbury, Pancoast, Montgomery, Stern, Wood, Daly and Dulles, of Pennsylvania.

* * *

The St. Louis daily papers are daily filled with "surgical sensations;" and, be it said to the credit of our local profession, nearly all of this scientific and technical matter comes from the eastern cities in the shape of learned and labored letters from special correspondents evidently doctors engaged for the time being at least in "turning an honest penny" by very improperly giving detailed descriptions of professional procedures. Without desiring to be facetious or personal I cannot refrain from making a statement of the fact that one particularly bright knight of the scalpel and lancet seems disposed to "Bull the Market" of the secular press's literary bureau. I trust that he gets his reward in the form of good paying cases, as in the nature of things he should, for it hurts him much with the profession, and there should be some compensatory feature.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Association will meet in St. Louis at the Pickwick Theatre, corner Jefferson and Washington avenues, September 11, 12 and 13, 1888.

The Wabash Railway has agreed to one fare for the round trip, and other roads entering the city will probably be as liberal in their terms.

An interesting and varied programme will soon be announced, it being the desire of the officers of the Association to furnish ample opportunity for full and free discussion of the papers rather than to have so full a programme as to preclude an exchange of views upon the part of the members.

It will be remembered that this society is occupied during its sessions entirely with the reading and discussion of papers, there being no opportunity for the consideration of anything extraordinary, external or irrelevant, all such matters being settled by committees. Recognizing the importance of proper pharmaceutical exhibits as means of instruction to busy practical doctors, the Committee of Arrangements has provided an elegant and eligible hall on the ground flour of the Assembly building. Those interested may communicate with Dr. Spencer Graves, Grand Avenue and Olive Streets.

This is the most desirable time of the year to visit St. Louis, and every effort will be made to make delegates and their families have an enjoyable and profitable time.

I. N. Love,
Chairman, Com. Arrangements.
Lindell & Grand Aves., St. Louis, Mo.

SELECTIONS.

THE INTRA-UTERINE DOUCHE IN PUERPERAL FEVER.

Dr. H. McEldery says (*Phys. and Surg.*, July), that when the temperature of a woman within ten days after parturition, rises above 99½ F. nothing will so promptly reduce it as a thorough washing-out of the cavity of the uterus with a solution of bichloride, one to four thousand, at a temperature of 115°. But if this treatment is not resorted to in the incipiency of the disease, valuable time will be lost that cannot be regained.

Within a short time symptoms of local ininflammation and deposits about the uterus may appear; peritonitis may occur, or the veins or lymphatics become implicated; conditions we are told contra-indicating the use of intra-uterine injections—as it is claimed that in these cases such injections can do no good—as the injection cannot reach the source of infection, it having passed from the uterus to the veins and into the lymphatics. Two cases of the above have, at the Fort, within the past few months, well and forcibly illustrated the good results of intra-uterine injections. In one case,patient showed well marked symptoms of septic infection, not developing until about the ninth day after labor. She had fever; severe chill; profuse and sour perspiration; severe shooting pains in the breast, limbs, and body; finally great nervousness and prostration.

There was, however, no tenderness about the uterus, and no odor could be detected about the lochia. We therefore gave her 30 grains of quinine a day for three days, but this failing to relieve her symptoms, and the patient evidently getting worse all the time, we promptly gave the cavity of the uterus a thorough washing-out with two quarts of hot bichloride solution, strength of one to four thousand, temperature 115° F., using the fountain syringe. The uterus was found flabby; but no clots or fetid discharge came away. The result was most satisfactory. The temperature, which was 102° at 4 P. M., the time of washing out the womb, fell that night to 99°, and the next morning had fallen to 98.4°, and it remained at about this; the patient making a most satisfactory convalescence. An interesting feature of this case bearing on the question of the source of the infection was that the infant of this patient was taken with fever towards the end of the third week, the rash of scarlatina making its appearance over its face, feet, and portions of its body, and ran its regular course; desquamation taking place, and six weeks afterwards well marked symptoms of nephritis made its appearance in the infant,albumen and casts appearing in the urine, but from which it recovered. The mother had no rash having had scarlet fever when a girl. It was afterwards discovered that the monthly nurse, who attended this patient, had had scarlet fever about a year previous, and that the woolen shawl worn by her while nursing our patient was one she had worn while sick and convalescent from scarlet fever.

I presume there is little doubt but that the mother and child in this case were both infected from the same source; producing, in the infant, three weeks old, scarlet fever, and in the mother puerperal septicmia.

INVETERATE HEADACHES.

In an article on the subject published in the Boston *Med. and Surg. Jour.* July 26, Dr. Hamiltor Osgood reports some interesting cases.

After calling attention to the fact that the negative results usually obtained by the use of remedies for chronic headache, have created an indifference, to such cases, on the part of medical men, he gave the history of lady, single, aged fifty-five, who suffered from in-

tense headache since her youth. She had used almost every variety of treatment; had consulted many physicians. Remedies which on one occasion gave relief failed utterly in another.

The patient was well-nourished; appetite generally good; bowels in normal condition; her face showed the exhaustion caused by chronic pain; the menstrual periods (now passed) had always been regular, and seemed to have no causative effect.

Her headache occasionally extended to the left side of her cranium but was almost wholly confined to the right side and never took the form of clavus.

The headaches were found to be invariably preceded by flushing of the right ear, the color deepening, as the pain appeared, to a livid hue. This led to an examination of the heart, which was free from organic lesion, but the first sound was weaker than the second and both sounds indicated weakness of the heart muscle. Dr. Osgood thought that possibly the trouble was due to impaired circulation. He prescribed tincture of strophanthus in doses of four drops which he subsequently increased to eight drops three times a day. This lessened the intensity of the attacks to a great extent. But he adds:

Still I was no nearer to a discovery of the original cause of the headaches. As to the quality of the pain I may safely repeat Begbie's words in relation to a similar case quoted by Day, in his book on headache: 'It was not nervous, nor hysterical; it was not inflammatory, nor congestive; it was not anemic; it was not dyspeptic; it was not of a rheumatic, nor of neuralgic character; it was not periostitic; it was not periodic.' Finally, something in the general look of the patient, nothing positive, there being no especial symptom which could be named, suggested gout. The patient denied all knowledge of any case of this ailment in her family, but a careful inquiry into the family history revealed the fact that in several of her ancestors gout had existed. I at once determined to test this possibility, and took with me a quantity of the patient's urine for examination.

I did not make a quantitative analysis for the uric acid present, but did find the fluid intensely and unusually acid, and that the specific gravity was 1,034. This, in the absence of albumen and sugar, confirmed me in my suspicion of the existence in the patient of a gouty tendency.

Prescribing the bicarbonate of soda in scuple doses, three times daily, the urine soon became moderately acid, the specific gravity fell to 1,024, and during the following six months, not only did the headaches become very infrequent, but when they appeared the pain, save in two instances, was not acute.

Meanwhile, under alternate use of the tinctures of strophanthus and digitalis, the circulation of my patient had improved to such a degree that the hands and feet became habitually warm, her face lost its expression of exhaustion, her eyes brightened and she looked years younger than when I first saw her. This change corresponded with a steadily increasing power in the first sound of the heart which was now stronger than the second sound.

By means of this treatment the patient enjoyed six months of comparative comfort, but at the end of this time the suppurating pulp of a molar tooth renewed the intense headache, and when the tooth was cured the remedies that had previously given relief had lost their efficacy.

Still holding to the theory that the headache were of gouty origin, Dr. Osgood put his patient on colchicum, iodide of potassium, and a regulated diet. Almost at once after beginning to take the remedies for gout the patient experienced a heretofore unknown sense of relief.

Dr. Osgood said: In a second case of headache of long duration the pain was located strictly over the occiput. The antineuralgic gamut of remedies, the patient told me, had been used in vain. He was frequently unfitted for his work which was wholly intellectual. His sleep had long been irregular and insufficient. His moods became despondent. He was never free from pain, which, however, varied in degree. This is the brief history of many years.

I found cold hands, injected conjunctivæ, a muddy skin. Examining the heart, though it was free from murmur and pulsated with regularity, its tones and impulse were not sufficiently strong for a well developed man, and the first sound was decidedly weaker than the second. I at once prescribed the tincture of strophanthus four times daily, the fourth dose to be larger than the other three and to be taken at bedtime. Very soon the chronic occipital pain was relieved and up to this time the remedy has been efficient. According to various writers occipital headache is not understood. Nevertheless it seems to me when cause and effect are as clearly shown and as easily relieved as in the case I have just cited, that we do get some idea of the conditions whose united result is headache. Still, even here, why the pain should confine itself strictly to the occiput, is, I must admit, a *quid ignotum.* I have, however, sometimes questioned whether the sudden and almost right-angled curves in the vertebral arteries just before they unite to form the basilar artery, are not a factor in occipital pain when the heart is weak or tired. At any rate the pain is almost wholly in the zone of these four abrupt turns in the two vertebral arteries.

Could it be vaso-motor pain due to pressure caused in these arteries by the resistance offered to the circulation by the arterial curves, plus the local accumulation of blood due to the weakened *vis a tergo* resulting from a feeble heart? There is much to learn here and I advance these theories with great diffidence. Erb says: "In regard to the etiology of this form of headache but little is known: " and I have at present a case under treatment which is very puzzling.

The patient dates his neuralgia as far back as his student days when he worked incessantly and neglected general care of his health. His daily life is spent in severe brain work. He passes at least eight hours daily in a chemical laboratory, which might lead one to suppose gases and odors to be one element in his headache from which he says he has not once been free for sixteen years. But, inasmuch, as during the long vacation, which is lived largely in the open air in a very high locality, the pain continues without intermittence, the natural inference is that laboratory work has little or no influence in the causation of it. Moreover, the headache began years before the patient became a chemist.

This seems one of those cases in which, as Erb says, no anitomical cause of pain can be shown to exist, and thus far it has defeated me. It need not be said that medicines, electricity, regimen, gymnastics, etc., have been vainly tried. Cannibis indica, antipyrine, anfebrin, galvanism have no effect whatever. I found that friction over the occiput and upper portion of the nape of the neck afforded decided relief. The patient continued the procedure but finally thought that so much movement increased the pain and it was abandoned.

He cannot sleep on his back without causing intense exacerbation of the pain, and is obliged to use an extremely thin pillow, for, when lying upon his side the slightest bend of the neck aggravates the pain. The increase of pain in the dorsal decubitus and by a bend in the neck is the possible result of retarding the circulation. Temporary relief from friction was the probable consequence of lessening the pressure in subjacent blood-vessels. These are points which seem to support my theory in relation to the outcome of sudden slowing of the blood-current by the curves in the vertebral arteries.

Cardiac tonics have as yet produbed no result, but have not been used long enough to prove their lack of benefit.

Blisters so highly recommended by Anstie and others, have not been tried, because the patient said he preferred the disease. The cannabis indica cure of this form of headache so vaunted by Stephen Mackenzie, in *Braithwaite's Retrospect* for July last, and before him by Anstie, Reynolds and other writers, has been pushed to intoxicating doses, and, excepting exhilaration, without apparent effect of any nature. This is the most obstinate case of headache in all my experience. During his youth the patient was favored with intervals of relief, but let me recall his

statement, that for sixteen years there has not been a single intermission in the pain which, in short, has now been so long a habit with him that he is quite able to be natural and normal in manner and daily life. He has an irritable and therefore a sensitive heart, otherwise his general functions are un disturbed. His appetite is always good but he has the look of chronic fatigue.

One thing that should not be forgotten is, that he is a smoker, but smokes moderately. I found that early in the day he was very dependent upon his tobacco, so much so that unless he had previously smoked, he could not deliver a morning lecture without dizziness. For that reason I requested him to delay his smoke by half-hours until it became noon. The patient, meanwhile, being obliged to fight a battle in which he finally conquered to his benefit. I cannot believe this a tobacco headache, for it began long before the patient smoked at all, and used to be more intense then it now is. The patient's eyes have been often and carefully examined by able oculists and every defect corrected by proper glasses.

He is not in any sense a hypochondriac, and I believe the case to be perfectly honest, so much so indeed as to give me the uncomfortable suspicion that this headache is my master—thus far at any rate. It can, however, be said that the pain although persistent seems to be wearing away, for it is less intense than it formerly was.

One important feature in this case should be mentioned. I have quite recently been led to surmise that mental worry has been an influence in this prolonged headache, for it has become apparent that a decrease in the intensity of the pain has coincided with a gradually increasing relief from the cause of the worry.

The cases I have chosen in illustration of my subject do not seem to belong to the class of merely peripheral neuralgias, and for that reason are more baffling.

I should have been glad to have quoted largely from writers on nervous affections, but so far as my experience goes, in the domain of inveterate headache, the books are well-nigh useless. I hope, however, to learn something from those who speak on my paper. Something more useful, at all events, than Strumpel's final remark on headaches which defy every remedy.

He calmly says: "Still the patient has the comfort of knowing that after years and decades, the affection when old age is reached, not rarely ceases of itself."

LATENT GONORRHEA IN WOMEN.

About fifteen years ago, Dr. Noeggerath turned the attention of the profession to the frequency of serious diseases of the female internal organs due to gonorrhea. He now frankly admits that he then drew too gloomy a picture of his case. Nevertheless, he had done a service to medical science.

The study of venereal disorders and the science of obstetrics and diseases of women are not sufficiently compared, owing to that extreme specialization which is so prominent a feature of the day.

His subject comprises two questions of great pathological and social importance. First, it is probable that gonorrhea in the male has altered in type owing to the increase of temperance. In a beer-drinker the first attack of gonorrhea seldom fails to involve great pain,at or,least,great inconvenience. The patient, therefore, takes care to get well as soon as possible, and not rarely is thoroughly cured before the disease has had time to spread upwards into certain recesses in the genito-urinary tract, whence it is hard to dislodge. On the other hand, the primary symptoms are usually mild in total abstainers, hence a temperate patient may be careless from the first.

In every case gleet may supervene and become chronic, so that its precise termination cannot be determined by the experienced. This involves great risk of the transference of the malady to the realms of obstetrics. A young man thinks that he has been thoroughly cured of gonorrhea, but his habits or surroundings often encourage the maintenance

of a scanty gleety discharge which escapes his notice. He marries, and his wife becomes a victim to one or more of the well-known forms of pelvic inflammation, often after abortion or parturition. Both parties may remain totally ignorant of the nature of the wife's malady, and so may the medical attendant.

The nature of the wife's malady is the second question suggested by Dr. Noeggerath's theories. Those who believe in a gonorrheal perimetritis and salpingitis must show how it may be diagnosed. By "latent gonorrhea" Dr. Noeggerath signifies the sudden develop. ment of the acute or sub-acute symptoms of gonorrhea in a part of the genital tract, as a result of some unaccustomed stimulus, after the absence of any local disease for a protracted period. Clinical evidence must, he states, be considered.

We are referring to a paper read before a German society, and published in the *Deutsche Medicinische Wochenschrift*, for December 8th. Winckel has already stated that in examining 400 female bodies in Dresden he failed to detect a single fatal case of ucute gonorrheal salpingitis. At Munich he found that disease to be common. During eleven years, at Dresden, he did not see a single fatal case. Within three years and three-quarters he observed three fatal cases at Munich. Great difficulty, however, attends the study of these cases. The gonococcus cannot always be found. Neisser, however, in examining 143 cases of chronic gonorrhea in the male, failed to find gonococci in 63 cases. Schwartz found these germs in 35 only out of 79 cases. Dr. Noeggerath declares that in women research of this kind must be yet more unsatisfactory, especially when the disease lies latent in the Fallopian tube. Out of 92 cases of infants suffering from blenorrhea neonatorum, Kroner found the gonococcus in only 63. In the case of 29 where the germ was not dectected, 17 mothers of the patients in this group had no gonococci in the lochia.

It seems evident that the disaharge of a gonorrheal patient remains contagious long after its specific germ has vanished. Hence bacteriology is of no service in determining the question of contagion in the case of a person about to marry, and it is of limited value in distinguishing the specificity of pyosalpinx or perimetritis. Dr. Noeggerath, therefore, relies on clinical evidence. He declares that in one case of a male patient who had been cured of gonorrhea for fourteen years, he pressed a great drop of pus out of the patient's urethra. In twenty-four cases of women with acute or recurrent peritonitis, where the husband had been apparently cured of gonorrhea before marriage, the cure in question was dated at two years before marriage in six of the husbands, at two and a half years in two, at ten years in one, and at eleven years in another. The date of the last attack of gonorrhea, as given by a patient, must however, be accepted with caution.

Dr. Noeggerath further insists that three or four cases of undoubted internal gonorrhea have been noted in virgins, through persistence of infantile vulvo-vaginitis (where gonococci are found) after puberty. He believes that in some cases of fatal perimetritis after labor, evidence has been found that the tubes must have been diseased long before the last labor or even pregnancy.

The distinction between puerperal sepsis and gonorrhea is important. Dr. Noeggerath's views certainly appear extreme in this respect, yet he quotes from two clinical establishments where about a quarter of the pregnant or parturient patients had suffered from gonorrhea. He relies on certain evidences of chronic gonorrhea in women, whether the disease has commenced with or without acute symptoms. These evidences are, first, the sudden onset in a recently married woman of a disease of the sexual organs, which involves rapid impairment of health, notwithstanding the trifling character of the local symptoms; secondly come puriform discharge in cases where deep ulcers, granulations, and new growths are absent; and scanty, clear discharges, with narrow, bright red erosions of the os externum. Catarrh of Cowper's ducts; small, pointed condylomata near the orifice

of the vagina, or forming a circle close to the anal orifice; the presence of granular colpitis, and the evidence of salpingo-perimetritis; and lastly, glandular ovaritis,are all important indications,when several or all are found in the same case.

Dr. Noeggerath probably takes a very gloomy view of the question of latent gonorrhea, much as he may have retracted his former and yet more extreme notion that 90 per cent. of husbands who had contracted gonorrhea before marriage infected their wives. Nevertheless, it is certain that gonorrhea in the female is a grave complaint if not cured before a woman becomes pregnant. After abortion or delivery at term, the raw interior of the uterus must be a favorable receptacle for specific discharge, and the Fallopian tubes form a highway into the peritoneum. Fortunately Dr. Bumm has shown that the gonococcus is not septic, and hence, according to his theory, the relative mildness of gonorrheal salpingitis as compared with the deadly puerperal perimetritis.—*Ed. Brit. Med. Jour.*

LAPAROTOMY FOR TUBERCULAR PERITONITIS.

Dr. A. T. Cabot reports (*Boston Med. and Surg. Jour.*) two successful cases of laparotomy for tubercular peritonitis. He then discusses the question as to how simply opening the abdominal cavity, evacuating the accumulated fluid and closing the cavity, effects an absorption of the tubercular deposits. He says:

The question as to how a simple incision into a peritoneal cavity filled with ascitic fluid, and studded with tubercles, works an arrest and apparent disappearance of the tubercular process is one of the hitherto unexplained enigmas of surgery. The observed facts are as yet too few to serve as the basis of any well-grounded theory on the subject.

Hirschfeld's observations show that the tubercles actually disappear from surfaces where they had been shown to exist, but we have not yet had the opportunity of sufficiently examining the conditions which accompany the cure of tubercular peritonitis.

In our endeavor to understand it, however, we should bear in mind certain characteristics of the tubercular process which are well observed in other places. In local tuberculosis of the joints or bones we know that in certain cases the disease undergoes a spontaneous cure, or, at least, become quiescent, and does not again appear during the life of the individual. This process of retrogression is greatly favored by securing for the diseased part absolute rest and freedom from irritation and by improving the nutrition of the patient through general measures, hygienic and medicinal.

When we get an opportunity to examine a joint which has suffered from tuberculosis and has recovered, we find the parts thickened and changed into fibrous tissue, with here and there cheesy or calcareous masses surrounded by a firm capsule. The process which has brought the tuberculosis to a standstill is analogous to that which we are familiar with around a cancerous growth. In each case the connective tissue about the morbid new growth is stimulated to increased activity, as is shown by the zone of new cells which surrounds both the tubercle and the cancer. These cells may finally develop into connective tissue fibers which surround and encapsulate the morbid new formation, and this fibrous tissue may finally, by its contraction, so press upon and interfere with the nutrition of the new growth as to lead to its death and disappearance by a process of fatty degeneration. This is the coarse of events so commonly observed in the scirrhous or hardening cancers, and also well illustrated in a tuberculous process developing in the midst of connective tissue.

It rarely happens that the vigorous growth of a cancer is definitely arrested by this effort of the surrounding tissues; for while it is held in check in one direction, it extends itself in many others; and breaks through the comparatively feeble barriers thus opposed to its progress. In tuberculosis, however, we have a process of much less vitality and which, occurring in younger subjects, is often successfully hemmed in and destroyed by the healthy tissues about it.

Now, in the case of a tuberculosis of a serous membrane, the morbid growth takes place under somewhat different conditions, especially when an effusion has distended the cavity. Here the tubercles form upon a surface from which they project. They are in contact with the healthy tissues on but one side. On the other they are bathed in a serous fluid which favors rather than hinders their growth. They often become pediculated, and hang off into the serum, almost detaching themselves from the membrane in which they originated. Under these circumstances it is easily seen that the tissues have but little chance to surround the tubercles by a zone of fibrous tissue, and so bring about their destruction.

Turning now to a consideration of the conditions under which a cure has been brought about by surgical interference, we finds reports of cases in which simple tapping and drawing off the fluid had been followed by an apparent arrest of the disease. These cases are, however, very exceptional, and leave us in some doubt as to the correctness of the diagnosis. The more radical procedure of making an opening into the abdomen and thoroughly evacuating the ascitic fluid has been following by a very much greater degree of success.

Some operators have sprinkled the abdominal cavity with iodoform; others have washed it out with corrosive sublimate solution, or with simple water; others again have used carbolic acid in an antiseptic wash. All of these measures have been followed by about the same degree of success, and we are led to conclude that the special method of operating or of subsequent treatment of the wound or peritoneum is of no special importance, but that the one thing which is of importance is the thorough evacuation of the fluid, and it does not much matter how it is done, provided it is complete.

The difficulty of entirely removing an ascitic fluid through a cannula seems sufficient to explain the rare occurrence of a cure after the imperfect evacuation of a simple tapping.

Dr. Van de Warker, in an interesting article in the *Amer. Jour. of Obstet.*, for Sept., 1888, points out two ways in which the accumulation of ascitis fluid may, perhaps, act to intensify the morbid process: first, through its mechanical irritation by pressure, or by some unexplained irritating quality in its constituents; and, secondly, by acting as a medium for the propagation and distribution of the tubercular germs.

Granting the effect that the effusion may have in assisting the spread of the process in either or both of these ways, we can see how the removal of the fluid might somewhat hinder the extension of the disease, but we still have to explain the effect that removing the effusion has in causing an actual disappearance of tubercles already existing.

Upon this point Dr. Van de Warker says: "The irritated peritoneum is given a rest and allows of a process that belongs *per se* to tuberculosis, namely, the thickening and induration of the surfaces—an incapsulation—and which, Hegar suggests, may be a stage in spontaneous cure."

It seems to me that this suggestion of Hegar's is of the greatest interest, and that it is probable that the rest afforded to the peritoneum is of importance in allowing it to set up its process of induration, and so to resist the advance of the tubercles, but we may go a step farther and appreciate another effect of the removal of the effusion which must, I think, play a very great part in bringing about the disappearance of the tubercular process.

As has been said, the tubercles upon the peritoneum are free upon one side, and frequently even hang off from the surface so as to be almost detached from it. Now, under these circumstances, the tissues have no opportunity to surround them with a zone of young cells, which shall become fibers, and so shut them in, encapsulate and destroy them. This condition exists as long as the abdomen is filled with fluid and the peritoneal surfaces are separated.

When, however, the fluid is wholly removed, and the peritoneal surfaces fall together and acquire adhesions, the tubercles

are then shut in between the coils of intestine, the omentum and the abdominal wall. They are thus surrounded by tissues in a high degree of activity, which can now throw around them the limiting zone of young cells. and eventually fibrous tissue, which, if the tubercular process is not too far advanced, may effectually resist it, and cause it to retrograde.

Lastly, in regard to the method of operating. As has been said, the simple evacuation of the fluid is all that we have to accomplish, and the wound may then be closed as after any laparotomy.

In both of my cases I used a drainage tube, but I shall not do so again. According to reported observations, even so large and thick walled a cavity as existed in my first case may be safely sewed up,with good hopes of arresting the tubercular process, and by discarding the drainage-tube we avoid the formation of a fistula with the long suppuration, which was a troublesome feature in this case.

ABSTRACT OF A PAPER ON PHYSICAL INDICATIONS IN HEART AFFECTIONS.

BY ARTHUR H. JONES, M. D., M. R. C. P.

After alluding to the rapid advance in the knowledge of diseases of the heart which had been made during this century, Dr. Jones said that before the introduction of modern methods, our predecessors had no doubt often arrived at accurate results by minute observation of the physiognomy, pulse, and breathing, as modified by cardiac affections. Their eyes were probably more accurately trained than those of modern physicians, who were, perhaps, too apt to trust entirely to their stethoscope and the sounds which it made audible. A danger connected with this was that an exaggerated meaning might be put in auscultatory signs, so that a heart which did its work noisily was on that ground alone liable to be condemned. We were so fond of pathognomonic signs, that if we could discover a sound or a movement, or the absence of a natural sound or movement, we were apt to associate with it too definite a lesion. Medical men, however, had now learned that a loud bruit or a large heart did not necessarily involve incapacity for the ordinary duties of life. Cases were related which illustrated this truth. It was not often, perhaps, that there was complete absence of symptoms with marked cardiac lesions, but many cases presented themsevles in which with definite organic lesions, the patient was only occasionally aware of there being anything wrong with his heart. Observers were now pretty well agreed that in many cases of damaged valves, or otherwise damaged hearts, we might give a more favorable prognosis than used to be the case only a short time ago, and our knowledge of the law of compensation and its mode of operation enabled us to forecast more accurately. Much depended upon the lesion, and on whether it was progressive, or was likely to become so. A definite cause, such as a strain or attack of rheumatism, together with the possibility of giving the patient a fair chance of developing corrective hypertrophy or dilatation, made the progression relatively favorable; on the other hand, the existence of valves undergoing progressive changes, such as atheroma or the interstitial growth, present in so many cases of mitral stenosis, were absolutely unfavorable.

That the existence of a bruit did not necessarily mean grave cardiac lesion, everyone must be constantly recognizing. Basic systolic bruit over the pulmonary valves could mostly be placed on one side as being simply functional. This, however, was not always the case, and such cases should be examined very carefully lest a case of congenital organic mischief, which closely simulated the functional bruit, should be passed over. The class of congenital heart disease was not a clear or well-known one. A bruit somewhere about the base, with some symptoms dating back to birth, or nearly till then, or with some displacement of the apex and accentuation or other alteration of the pulmonary second sound, should raise suspicion. Illustrative cases were cited.

Other bruits were sometimes present which did not indicate valve lesion or failure. A very localized bruit, varying, perhaps, with the position of the patient, the pressure of the stethoscope, or the movements of the chest, situated near the apex and unaccompanied by any enlargement of the heart or other variation in the sounds, might be explained by the friction patches or lung adhesions. Further, there were bruits heard in the position with most of the characters of systolic mitral murmurs which did not appear to be caused by any cardiac lesion. Such murmurs were now thought to be due to temporary weakness of the heart-muscle interfering with the approximation of the parts around the mitral valve when the valve should close, and thus giving rise to slight regurgitation, indicated by a bruit which disappeared when the heart-muscle recovered its tone. At the same time the disappearance of a bruit could not be taken as an indication that it was non-organic. Everyone was familiar with the errratic bruit of mitral stenosis, present one day and gone the next. In other valvular lesions, also,even very marked bruits might cease, especially near death. A loud bruit was no longer taken as an indication of a severe lesion. and a faint one of a slight lesion; in fact, increased intensity of the bruit was often a hopeful sign as evidencing that compensanion had been effected.

The cases in which bruit was absent, though the heart was seriously affected, were various. There was the large heart of renal or arterial disease. Increased resistance in the vessels had caused hypertrophy, and possibly some additional cause led to serious dilatation, so that no bruit was present. Then there were cases of marked valvular lesion, stenosis, or incompetence, and here the heart-muscle was weak; and cases of simple dilatation. Observation of the position of the apex-beat was more reliable than listening for a bruit in heat cases. In thirty cases of his own, in which, though there was little or no bruit, the heart was seriously diseased, the apex was considerably displaced in most of them, being beyond the nipple line. It was, however, necessary to guard against a false conclusion in this matter. Fibroid phthisis, or adhesions due to other causes might displace the apex-beat of a healthy heart, which again might be pushed over by pleural, or outwards or upwards by peritoneal effusions. Again, a diseased heart might be pushed over from the left towards the right side by an effusion in the left pleura. Methods of determining displacement of the apex-beat by measurement and percussion were then described, ard examples of great lateral and downward displacement were cited.

On the other hand, there were cases of valve lesion where no bruit was present, and the apex-beat was not appreciably displaced. In the early stage of endocarditis, before there had been time for the development of hypertrophy or dilatation, this might readily occur in a heart too weak to give rise to a murmur. The intensity of the aortic, and especially of the pulmonary, second sounds might also give valuable information. If causes of increased pulmonary tension (fibroid phthisis, emphysema, etc.) were excluded, the working power of the heart might be judged of and a clue to organic lesion obtained by first noticing that the pulmonary second sound was accentuated or very deficient. Enfeeblement of the sound was often noted in cases of large heart associated with renal mischief. It is usually the corelative of extreme dilatation of the right ventricle, and was an indication of grave mischief. Accentuation of the sound, on the other hand, was present in many cases where the symptoms were slight; but he usually found other signs more clearly indicative than that as regards prognosis—the clearness or otherwise of the sound produced by closure of the pulmonary valve was very valuable; increasing intensity under treatment being of good augury, and increasing or mere unchanged feebleness the reverse.

In the absence of bruit when the heart's impulse was too indefinite to localize, a short sharp first sound (making the first and second sound closely resemble each other) was suspicious. It indicated a weak dilated cav-

ity, and showed that the heart was ill prepared to battle with any valvular lesion or other obstruction to the flow of the blood.

With regard to treatment, the value of rest could not be overrated. Arterial tension should be reduced by blue pill or other means. Strychnine, which is apt to be forgotten in our eagerness to use digitalis and other heart-tonics, was a valuable drug in cardiac affections. According to Dr. Herbert Habershon, the hypodermic injection of two minims of liquor strychniæ, repeated in some cases, was most useful in failure of the heart's action from weakened muscle. It had succeeded where the instantaneous injection of ether had been useless.—*Brit. Med. Jour.*

THE INVOLUTION OF THE MUSCULAR TISSUE OF THE PUERPERAL UTERUS.

An essay by Dr. M. Saenger, a former assistant and pupil of Professor Wagner, of Leipzig, is given in the *Annals of Gynecology*, July. After reviewing the literature on the subject of involution of the uterus, Dr. Saenger gives the results of his microscopical examinations of seventeen uteri, two of which were normal, unimpregnated organs of women who had borne children; two at the sixth and eighth month, respectively, of gestation, and twelve puerperal. The latter specimens were obtained at various times ranging from four hours to fifty-five days post-partum.

The following are the conclusions which he has drawn from his investigations:

1. The involution of the muscular tissue of the puerperal uterus is begun, as a result of the performance of an increased volume of work, in addition to great activity in the tissue changes during parturition.

2. Retraction and contraction of the entire uterus, after parturition, signifies retraction and contraction of individual muscular fibers; the expression of which is to be found in the shortening and broadening of the muscle-spindles, with the formation of transverse and longitudinal ridges upon them.

3. A further disturbance in the equilibrium of the tissue changes in the muscular tissue of the puerperal uterus is caused by the cessation of the rich blood-supply which it enjoyed during pregnancy, that is, by a relative anemia. These three factors—increased oxidation, continuous retraction and contraction, and relative anemia—lead to retrograde metamorphosis of the protoplasm of the muscular fibres (finely granular cloudiness, hyaline degeneration, fatty degeneration), and by an absorption of the superfluous protoplasm, cause, as a consequence, a gradual diminution and reduction of the muscle-fibers to the normal.

4. The fat globules which are formed within the muscle-spindles, and the other products of disintegration, do not enter as such into the circulation; but are oxidized in the place where they occur. There is no such thing as puerperal lipemia.

5. Probably not a single muscular fiber is destroyed by complete fatty degeneration. The regressive changes within the puerperal muscular fibers, which may be denominated para-trophic, have for their object only the true involution of the muscular fibers until they have attained their earlier size and form. The definition of atrophy, as a pathological process, does not correspond with the physiological nature of these processes.

6. Any muscular fibers, which may be newly formed during pregnancy, must undergo similar puerperal para-trophy and involution, in proportion to the degree of development which they have reached at the time of parturition.

7. The intermuscular connective tissue experiences a similar involution in its cellular and fibrillar elements; thus it does not play any active part nor experience hypertrophy.

8. The increased size and weight of the uterus of a pluripara, compared with that of a nullipara, depends upon a certain permanent increase in the intermuscular connective tissue, which is restored to the tenseness, density, and elasticity of the virgin state; and it also depends upon a certain permanent enlargement of the muscle fibers. If there is also, during pregnancy, a new formation of

muscular fibers, and this has not yet been positively demonstrated, the greater volume of the pluriparous uterus would then be explained by the absolute increase in the number of those fibers.

9. Post-partum subinvolution of the uterus is not an independent disease, but a prolonged and incomplete involution, which is disturbed in its progress, and is dependent upon changes in position, disturbances in the circulation, and inflammations of the uterus and its surroundings.

10. By post-partum atrophy of the uterus is signified a diminution in its size which brings it to the boundary line of the pathological, so that its volume may sink manifestly below that of the normal pluriparous uterus, this being conditioned upon an abnormally great reduction in the muscular fibres and the intermuscular connective tissue, with an anemia of the uterus, the sexual organs in general, or the entire body, as a probable fundamental cause. In physiological cases the nutrition improves, the increase in the volume of the uterus is continued until the normal is again reached, and menstruation returns as a regular and uninterrupted function. In pathological cases the uterus remains permanently atrophic with the continuance of oligomenorrhea or amenorrhea.

11. In cases in which the fetus dies, involution of the uterus begins before the fetus is delivered. In cases in which delivery is impossible (as in the case which has been cited in which there was pregnancy in a rudimentary horn of a bicornate uterus), all degrees of puerperal involution can be perfectly accomplished, the same as in a normal puerperal uterus.

12. Wounds of the puerperal uterus (such as the wounds made by Cæsarean section and ruptures) heal, under favorable conditions, by first intention, as readily as wounds in other organs.

Tuberculosis Transmitted by the Milk of a Phthisical Cow.—A remarkable case has been recorded by Denune, of Berne, in which an infant became infected with tuberculosis through the milk which had been obtained from a phthisical cow. The details of the case are as follows: An infant, aged four months, belonging to a family whose history was absolutely negative in regard to tubercular affections, died of tuberculosis of the mesenteric glands, a fact which was confirmed at the post mortem examination. The glands alone contained the characteristic bacilli; the latter were not even to be detected in the intestinal mucous membrane, and no bacilli were found in any other part of the body. The child was fed with the milk of a cow which was especially kept for the purpose. The cow for the purposes of examination and inquiry was slaughtered, and a careful post-mortem made of its carcass. The left lung and pleura of the animal were found to be studded with tubercle, and in the tubercular nodules bacilli were easily found. The milk was then submitted to a minute investigation, but bacteriological examination at first yielded negative results. Finally, however, tubercle bacilli were detected in portions of the liquid expressed from the deepest parts of the mammary gland. The case is an important one from several points of view, and claims attention by reason of its bearing upon the so called hereditary transmission of tuberculosis. If, instead of a human infant, a calf had in a natural manner fed itself with milk from its mother's udders, we can hardly conceive otherwise than that the calf would have similarly become infected with tubercle. Assuming such to have occurred, the case would obviously have been regarded as one of the hereditary transmission of tubercle. But taking the supposition that a women suffering from phthisis suckles an infant, there seems to be no reason why the same result should not occur, and why, like the infant and the cow, to which reference has been made, the mother should not transmit the bacilli by means of her milk to her offspring. All this appears to be possible enough, and has, perhaps, even occurred in some cases without the fact having been proved by demonstration.—*Med. Press and Cir.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 9. ST. LOUIS, SEPTEMBER 1, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

ARE "MEMBRANOUS CROUP" AND DIPHTHERIA IDENTICAL? YES.

BY I. N. LOVE, M. D., OF ST. LOUIS, MO.

Read to the Section on Diseases of Children at the Annual Meeting of the American Medical Association, held at Cincinnati, Ohio, May, 1888.

Since the first paper of Bretonneau about 1821 at which time our real and definite knowledge of diphtheria had its beginning, down to the present time, the question which forms the subject of this paper has not been decided.

Earnest students and careful observers have answered affirmatively and negatively. I shall not fatigue my hearers by collating the expressions of writers who have accepted one view or the other. I shall present my own opinions based upon a deliberate weighing of all the evidence presented by trustworthy and thoughtful witnesses, and personal clinical observation extending over a period of eighteen years in hospital and private practice.

During the earlier years of my professional life I was uncertain in my position; after reading the views of Virchow, Cohen, West, Flint and others as able, I was inclined to take a position in the ranks of the dualists. Severe scrutiny of the products of the pens of Bretonneau, Traube, Barthez, Sanne, and the tribe of unicists, left me inclined to favor their position, but special clinical opportunities and additional arguments of later watchful workers and able annalists, like Jacobi and Struempel, have enabled me to crystallize my convictions and prompted me to take a position positive and pronounced in favor of membranous croup and diphtheria being identical.

While it may be true, as Hilton Fagg has observed, that the more our knowledge of disease advances, the more our distinctions and subdivisions multiply, yet the tendency toward unnecessary multiplications and distinctions without differences should be guarded against most carefully.

Dermatologists have given us a half dozen different terms to be applied to the different forms or expressions of erysipelas, when, as a matter of fact, we know that pathologically speaking, they are all one and the same disease, dependent upon the same germ, and only varying in degree, action or manner of announcement.

So, too, with fevers, the same disposition was manifested, as was illustrated when for a time typhoid fever plus malaria as a complication, permitted the new coined term, "typho malarial fever," to take its place in our nomenclature.

Whether the membrane as in the so-called true croup be a fibrinous exudation superficial aud easily stripped from the surface, leaving a smooth mucous surface only robbed of its epithelium, while that of diphtheria is more of a coagulation penetrating or poured into the mucous tissue—a necrosis as it were, in which the eschar can be removed only with great difficulty—is not important, it being largely dependent upon the anatomical characteristics of the parts involved.

That the disease is due to a special germ or micro-organism is admitted, and the recognition of this pathological point in the treatment has made a much more favorable showing in the mortality reports.

The growth and development of seed depend much upon their individual virility, fa-

vorable soil and surroundings. The expression of every disease varies with the individual victim, and is largely affected by his environment, favorable or unfavorable. A. may have typhoid fever so mild as to lead his physician to fancy he has in hand a simple case of continued fever, an attack of scarlet fever so simple as to be almost frivolous to the unwary; an assault from the dreaded Asiatic scourge, cholera, so mild as to take the form of a gentle intestinal relaxation, an erysipelas suggesting an erythematous flush, a small-pox with pustules few and far between, and little systemic suffering; while B. in the same ward may fall a victim to typhoid typical, scarlet fever, severe and superbly perfect, cholera, classical and collapse prompt, erysipelas so excessive as to endanger life and occasion an amount of suffering indescribable, and a variola so virulent as to promptly kill or leave its victim marked in visage repulsive. This being so, then why should not A. be as likely to have diphtheria in a manner so moderate and superficial as to be almost overlooked, and B. so pronounced as to be fatal before the local expression could be observed.

Diphtheria selects by preference the pharynx rather than the larynx. The tonsils are a favorite site for the infection, not alone because of their prominence, but also because, as has been demonstrated, there is frequently to be found an interruption or break in their protective epithelial covering, and also owing to the fact that they are frequently in a vulnerable condition owing to previous or present inflammatory conditions. Then again, pavement epithelium is much more susceptible to attack than the ciliary variety, the latter being a higher grade of organization, of a more complex character, and possessed of greater ability to oppose aggression. When diphtheria attacks the larynx and trachea, which it does, fortunately, very rarely relatively, owing to the ciliary covering being less easily penetrated by the bacillus (possibly the tubercular bacillus makes a primary attack upon this point so often for the same reason) the free distribution of mucous glands which flow freely, creating an exosmosis rather than an endosmosis, antagonizing absorption and impeding the peril of the adjacent tissues and destructive necroses of the same. At the same time the secreted mucus aids in throwing off the exudations from the surface, and the same causes are an explanation of the failure of the lymphatics of these structures to take up the infectious matter, hence laryngeal and tracheal diphtheria are largely local and unaccompanied by constitutional symptoms, and would be a really mild expression of the disease were it not that for mechanical reasons, life is endangered.

For similar reasons the circumscribed patches of diphtheria membrane upon the tonsils frequently covering them in their entirety, or their opposing surfaces, are unaccompanied by much constitutional disturbance; glandular involvement, etc., are mild manifestations of the disorder, and by practitioners who intemperately assert that death is the only evidence deciding in favor of a diagnosis of diphtheria, are no doubt sometimes placed in line with non-infectious diseases.

The structure of the mucous membrane, its different elnments, as the epithelium, basement membrane, underlying connective tissue mixed with elastic fibres, the blood vessels, nerves and gland ducts, all affect materially the pathological plan of action locally and the general involvement. The free flow of secretion from the membrane lining the larynx and trachea and the nasal cavities favor the separation and ready expulsion of organized exudates, but the difference in the adjacent tissues is manifest in the varying systemic poisoning, in laryngeal and tracheal diphtheria. Bowman's membrane forms a barrier to ready absorption while nasal diphtheria is deadly dangerous, due to the large number and size of the lymphatic ducts of the Schneiderian membrane, as well as their perfect communication with the lymphatic glands of the neck, all aiding ready entrance into the circulation.

The urine being free from albumen in the

majority of cases of croup, is cited as an argument by the dualists to sustain their position, but even granting the fact, it is explainable by reason of the constitutionally mild character of the attack, if the larynx be primarily involved, and the large mortality preventing a fair comparison and complete determination of presence or absence of albumen. The frequency or infrequency of subsequent paralysis presented to prove their position as dualists can be met by the same answer as the above. A very interesting discussion of this subject occurred in the Louisville Clinical Society, January, 1888, and is reported in the *Amer. Prac. and News* of February 4. An exhaustive aggregation of arguments from the dualist standpoint is presented by Dr. John A. Ouchterlony. Dr. W. Cheatham, of Louisville, by request of Dr. Ouchterlony, looked up the authorities for the other side and admirably arrayed them in the service of his friend, and he acknowledges that the resulting article comes very near making him a unicist. If there be a difference, it is far from clear to his mind.

The argument that the suddenness of the attack and absence of a period of incubation separates croup from diphtheria, is properly met by the statement that examinations of the pharynx and nasal spaces are frequently insufficient, and the mild prodromata which would of necessity occur in primary laryngeal or tracheal diphtheria would probably be overlooked. I suspect that if the majority of cases of croup could tell their own story, they would relate the fact that a complete examination with full illumination of all the available mucous territory had not been made, and that intelligent and persistent interrogation might have revealed a history of slight loss of appetite and discomfort in swallowing difficult morsels for several days before.

To illustrate this point, I recall three cases of croup, so called, within my knowledge during the past six months. One case will illustrate the three: I was sent for to see a child four years old, said by parent to have sore throat, and feared diphtheria; not being in office some hours elapsed, and call was cancelled. A few days later the mother informed me that she had treated the child with medicine ordered for a neighbor's child with diphtheria, and had countermanded the order for me to call fearing her house would be placarded, and her business—the supplying of the neighbors with milk—ruined. Five days later I was summoned in the night, but being out another physician was called; two days later I was called in consultation and found the child dying from pronounced laryngeal diphtheria. Intubation or tracheotomy was offered and rejected. The child died a few hours later, and a certificate was given by the attendant, giving croup as the cause of death.

The mortality records show an enormous increase of deaths from croup (?) during an epidemic of diphtheria.

One fact which is worthy of notice, and which is an additional argument in favor of the identity of the two diseases, is that the classical treatment for croup has for years been free exhibition of the mild chloride (coupled with stimulation) with a view to its defibrinating effect. The secretory system has thus been stimulated and the effect has been to favor the moistening and exfoliation of the exudation and antagonize the disposition to constitutional involvement.

Since the same plan of treatment has been applied to general diphtheria, the tendency has been to the securement of a similar result, and the mortality reports present a more favorable showing. By the prompt recognition of the first appearance of diphtheria and the immediate institution of imperative interference in the shape of free purging with the mild chloride, local antiseptics rendering the infectious matter innocuous, and the continuance of constitutional measures which are germicides and stimulators of glandular action, first on the list being the bi-chloride, benzoate of soda, and large quantities of water, we can without doubt claim accomplishments that are tangible and positive.

I feel strong in the conviction that "croup" and diphtheria are one and the same disease,

and that the teachings of pathological anatomy, as well as the clinical symptoms will justify no other conclusion.

3601 Lindell Boulevard.

REPORT OF A RESECTION OF INFERIOR MAXILLARY FOR OSTEOSARCOMA.

BY W. HAMPTON CALDWELL, M. D.

Nannie H., æt. 18 years, occupation, school-teacher; family history good. She stated that 12 months before she came under my treatment a small hard lump, the size of a hazelnut, was discovered on left side of lower jaw over second bicuspid, and directly covering "mental foramen." The tooth was removed but without any benefit to the growth, which seemed to increase more rapidly. The gums and general interior of the mouth were normal. The teeth were unusually firm in their alveoli processes. A trocar was introduced at different times and pressure applied, but the tumor continued to increase in size until she came under my treatment in June, at which time she complained of inability to use left arm, and constant dull pains in left side of neck and head.

The tumor was then about the size of a large hen egg, and being on the outside of the jaw, disfigured the patient almost beyond recognition. The neighboring glands were somewhat enlarged, particularly the submaxillary and parotid. My diagnosis was "osteosarcoma," and I proceeded to operate by resection of one half of the inferior maxillary bone which was done as follows: After extracting the lower left lateral incisor, I made an incision in soft parts from ramus of jaw along the inferior border of the same to median line, thence bearing to the left of said line, passing up to the edge of the mucous membrane of lip. The soft parts were carefully dissected from bone and turned back over cheek. A small narrow saw was next used, and the jaw bone divided near the median line, and again divided at the ramus; the section between these points was then removed, the bleeding from larger vessels controlled by "torsion" and soft parts brought together and held in position by twelve hair-lip pins with figure 8 ligature on same.

The external wound healed by first intention, and at the expiration of eight days I removed the ligatures and took out pins. No after treatment was used except antiseptic mouth-washes (Listerine and carbolic acid). The patient entirely recovered from operation in four weeks, and has again resumed her duties as a school teacher, with no indications of a return of the disease. The space where the bone was removed has been filled in by cartilage to almost its original shape. The photograph of patient, taken one month after the operation shows what little deformity resulted.

INTERNATIONAL HYGIENIC SOCIETY.—The above-named Society is about to try an experiment in London which has met with success in various Continental cities. The Society has opened two kiosks for ladies at 81 Park Street, Grosvenor Square, and 4 Grosvenor Street, on sites which have been granted to the Association at a nominal rent by the Duke of Westminster. £2,500 will be spent on these buildings, which will afford writing and reading rooms, and two large swimming baths, surrounded by recreation grounds. It is proposed to establish altogether in various parts of the metropolis fifty similar places for ladies exclusively, about one hundred in the city for men, and swimming and shower baths in the east of London, where also food will be supplied. It is to be hoped that at length London may become clean.—*Brit. Med. Jour.*

A circular, advertising "——' Remedy for Gout, Neuralgia, etc.," is being distributed by a reputable (?) drug firm in New York city. The statement is made in the circular that ninety-nine per cent of organic diseases of the heart are due to the use of liniments and other external applications. The *Med. Rec.*, thinks it is rank impertinence to send such a circular to educated physicians. Some people would call it "business push."

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, SEPTEMBER 1, 1888.

CHANGE OF DATE OF MISSISSIPPI VALLEY MEDICAL ASSOCIATION MEETING TO SEPT. 25, 26, and 27, 1888.

In order to facilitate the most liberal railroad rates, and in keeping with the desires of many important members who wish to be present, the change from Sept. 11 to Sept. 25, has been made by the committee of arrangements and the officers of the Association.

Every thing points to a large and successful meeting.

From every direction come assurances of interest.

The local profession in St. Louis are keenly alive to the importance of the meeting, and will unite to give all visitors a cordial St. Louis welcome.

The programme is practically made up. Among the many good papers secured may be mentioned the following:

The Nature and Cure of Psoriasis, by Dr. Franklin Hay, Indianapolis, Ind.

Albuminuria—Retinitis—Case, by Dr. W. Dickinson, St. Louis.

Excision of Chancre, by Dr. I. N. Bloom, Louisville, Ky.

What is Naso-Pharyngeal Catarrh, by Dr. G. V. Woolen, Indianapolis, Ind.

Cleft Palate and Hare-Lip, by Dr. R. M. Funkhouser, St. Louis.

The Absorption of Water by the Colon and its Therapeutic Uses, by Dr. Geo. J. Cook, Indianapolis, Ind.

Laparotomy for Wounds of the Intestine with Cases, by Dr. H. C. Dalton, St. Louis.

Obscure Diseases of the Rectum, by Dr. Joseph M. Mathews, Louisville, Ky.

Treatment of Benign Laryngeal Growths, by Dr. Wm. Porter, St. Louis.

On the Management of Labor in Cases of Highly Contracted Pelvis, by Dr. H. Schwarz, St. Louis.

Multiple Chancres of the Hard Palate, by Dr. A. H. Ohmann-Dumesnil, St. Louis.

Mineral Waters, by Dr. A. B. Shaw, St. Louis.

There will also be papers from Dr. F. W. Beard, of Vincennies, Ind., and Dr. Wm. A. Hammond, of New York.

Half fare rates it is believed will be secured from all the railroads. Delegates must be sure and secure a receipt from local ticket agent of full fare paid on buying ticket.

CARBONIC ACID IN THE VOMITING OF PREGNANCY.

Dr. A. Rose, of New York, has used rectal injections of carbonic acid gas for allaying vomiting of pregnancy and the "results were invariably gratifying." In the *Med. Rec.*, he describes his method of administering the remedy. A thick bottle with a wide neck holding a pint or more, and rubber stopper perforated so as to admit a tube with the nozzle of a rectal syringe attached to it, is used in generating the gas. Six drams of bicarbonate of soda dissolved in eight ounces of water are poured into the bottle, the nozzle at the end of the tube is introduced into the rectum, and four drams of crystallized (not pulverized) tartaric acid are poured into the bottle and the stopper quickly replaced.

Dr. Rose has found this preferable to the introduction of carbonated waters into the bowel. He says the method sometimes used of attaching the rectal tube to the nozzle of a siphon bottle, forcing the carbonated water into the bowel, is not altogether safe. In one case which he referred to, in which carbonated water was used, it was found necessary to continue the injections daily for six weeks.

Any remedy that is safe and offers a hope of relief in the worst cases of this class will

be welcomed by the general practitioner, as now and then he is put to his wit's end to know what next is to be done for his patient.

The Pupil as a Guide in the Administration of Chloroform.

The *Med. Rec.*, of Aug. 18, has the following:

As a result of experiments upon animals and of observations made upon man, Dr. H. I. Neilson formulates the following conclusions:

1. The first effect of chloroform narcosis on the pupils consists in a dilatation which varies in intensity and duration in different individuals. As the anesthesia becomes more profound, the pupils then begin to contract, and finally become very small and immovable. If now the chloroform is pushed still further, a sudden dilatation occurs, which is the result of asphyxia, from which the patient seldom recovers.

2. As long as the pupil is observed to dilate in response to sensory stimuli, such as pinching the skin, the anesthesia is not yet sufficient to allow the commencement of the operation.

3. As soon as the pupil becomes strongly contracted and immovable, the administration of the anesthetic must be suspended until a commencing dilatation is observed, and the patient must be held at just this point as long as the operation continues.

4. Vomiting causes a dilatation similar to that occurring as the patient emerges from the narcotic condition, but it is usually more sudden in the former case. In experiments upon dogs it was found that the contraction of the pupils did not begin until the blood-pressure was somewhat reduced, and that the dilatation proceeded *pari passu* with the increase in the blood pressure. The author regards the appearance of the pupil as a very reliable guide for the administration of the chloroform, as by it he is enabled to judge accurately concerning the condition of the patient.—*La Riforma Medica*, July 23, 1888.

At a meeting of the Missouri State Medical Society in April last Dr. Charles Barck of this city read a paper on this subject which was published in the Review May, 12, 1888.

Some one has said we can't believe all we hear. An English paper published an account of a case in which it was alleged that the patient's sight was restored by a flash of lightning. In speaking of the case the *Brit. Med. Jour.*, says:

"On inquiry we learn that for some time after, the patient could only partially open the eye, that the cornea was opaque, and had been gradually clearing for many months past. In the absence of any authoritative statement as to the condition of the vision before and after the lightning flash, there seems no reason for assuming that the case was anything but an ordinary one in which the cornea was slowly clearing. Nothing is more common than for a gradual improvement to be suddenly noticed when it has reached a certain stage."

Not long since I had occasion, in a neighboring town, to place a little boy under ether and operate upon his lid. At a side window of the office, a company of spectators assembled. The following day a number of persons asked me how the boy was whose eye I removed, fixed, and put back.

The Accidents Incidental to the Use of the Exploring Needle for Diagnosis.

Dr. Hermann M. Biggs read a very instructive paper upon this subject before the New York Clinical Society (*N. Y. Med. Joar.*) He called attention to the fact that a large number of the profession believe that the exploring needle may be introduced into almost any organ of the body without danger. He quotes a member of the house-staff of one of the leading hospitals in New York, as saying, I know that pulsating tumor of the chest is an aneurism, because I introduced a hypodermic needle into it, and moved the needle around in all directions, thus proving it was a large cavity, and then withdraw it with a syringe full of blood. Dr. Bigg's justly re-

marks that it was not the operator's fault that stratified fibrin, from the aneurismal wall was not set free in the blood current as emboli.

Dr. Biggs classified the accidents that may accrue from the use of the needle as those produced by the traumatic action of the needle; those cases in which the healthy tissues are inoculated as the needle is withdrawn from the infectious material, and those produced by the introduction of needles not properly disinfected. He pointed out that special care should be taken in introducing the needle into the chest cavity. Cases reported have already proven that great danger attends the puncturing of the lung tissue with a needle.

A number of cases were cited in which fatal peritonitis followed puncturing of distended gall-bladders. I believe that the introduction of a needle into the gall-bladder for diagnostic purposes will soon be put upon the list of unjustifiable procedures.

Dr. Biggs wished it distinctly understood that he in no way protested against the use of the exploring needle for diagnostic purposes in properly selected cases and with proper precautions, but he did protest against the indiscriminate use of it. From the cases which he gave he drew the following conclusions:

1. The employment of the exploring needle is not infrequently attended by considerable danger, and a number of deaths have directly resulted from its use.

2. The indiscriminate, careless, and routine resort to exploration with a needle should be condemned. This procedure should not be resorted to without careful consideration of the conditions obtaining in each case and the results that may follow the puncture. The site for the puncture should be thoughtfully chosen, the puncture carefully made with complete antiseptic precautions, and the smallest needle that will answer the purpose employed.

3. The puncture of collections of fluids with tense walls in relation with serous surfaces should be, a s far as possible, avoided, and, if it is resorted to, sufficient fluid should be withdrawn to relieve the tension upon the walls of the sac. In many cases certainly an exploratory operation would be attended by less danger.

4. In the introduction of the needle into deeply seated infectious matter the nature of the intervening tissue should be carefully considered.

5. The needle before use should be always thoroughly disinfected, preferably by heating in the flame of an alcohol lamp or a Bunsen bnrner.

6. The skin where the puncture is to be made should be rendered thoroughly aseptic by first scrubbing with soap and water and thenwashing with an antiseptic solution.

7. The dangers attending the use of this valuable adjuvant in diagnosis should not in the slightest interfere with its employment in properly selected cases, where due precautions are observed as to its use.

Sir Wm. Bowman, F. R. S.

We learn, through the *Brit. Med. Jour.*, that a number of leading surgeons and physicians of England have formed themselves into a committee whose object is to present to Sir William Bowman a testimonial of their appreciation of his contributions to ophthalmology. It is the purpose of the committee to have an eminent artist paint a portrait of Sir William, and this together with a reprint of some of his works is to be the testimonial.

How gratifying it must be to one who has fought the battle of life long and well, to realize that through his efforts the sufferings of humanity have been materially lessened. The pleasure thus derived can be intensified by expressions of appreciation from one's fellowmen.

Many instances have occurred in which men have died in poverty and their friends (?)raised costly monuments to their memories. We are glad to believe that such instances do not occur so frequently as formerly. During the present year Professor Donders, of Utrecht, was presented with a testimonial that will permanently connect his name with the

university in which he has spent the better years of his life.

Sir William Bowman can have the satisfaction of knowing that his name will live so long as ophthalmology is recognized as a science, though thousands are reaping and will continue to reap the benefit of his labors, without having a thought as to who contribnted to our stock of knowledge the methods by which relief is brought.

What Cocaine to Use.

Dr. Dudley S. Reynolds, President of the Mississippi Valley Medical Association, says in the July number of *Progress*:

"The medical profession has about settled its estimate of the therapeutical value of muriate of cacaine, but it is, unhappily, no easy matter to decide upon the most uniformly reliable source of supply. The editor of *Progress* had about concluded Merck's was the only reliable product, when recently he was induced to make trial of that produced by Parke, Davis & Co. A fresh sample of ten grains was dissolved in five drachms of distilled water, to which was added one drop of liquid carbolic acid. One drop of this distilled into the eye of a man from whose cornea a foreign body was to be removed, produced complete anesthesia in three minutes, so that incision of the inflamed cornea, and turning out of the piece of offending metal was not felt by the patient. Twenty other similar experiments yielded similar results."

The Careless Use of Chloral, Morphine and Other Narcotics.

Hardly a day passes that the busy physician does not meet with some case which stands as a finger-board, warning him against the dangers of begetting in patients the baneful habit of using narcotics and powerful drugs.

The following, related in the *London Lancet* (Aug. 4, '88), is a case in point, viz :

Another instance of the dangers arising from the incautious use of chloral has been recently made public. Mark Robinson, a lad of eighteen years of age, who had some few months since begun a promising career in London, shot himself in a public cab. The most searching scrutiny has failed to assign any cause for the act, but the medical history is interesting and instructive. Gauged by the commercial standard, the boy was a valuable clerk, and a few days before his death had been promised promotion. From a medical point of view, he was neurotic, and recently removed from schoolboy sports to the surroundings of city life he became neuralgic. In ignorance of the baneful effects of chloral, he drifted into its incautious use, and on the night before his death appears to have taken five doses. He was found on his bedroom floor in the morning so deeply narcotized that a medical man was called to see him. Both the latter and the boy's father were thankful for the disclosure, and were sanguine that the evil had been recognized in time. But soon afterwards, and while he was still unable to dress himself without assistance, he was summoned by telegram to attend at his office. Ill and quite unfit he went thither in a cab. What ideas must have passed through his mind during that arduous dressing and journey may be learned from the sequel, for when his employer pronounced him incapable of signing a legal document as witness and sent him home, he shot himself on the way with a revolver which had hung in his brother's room at his lodgings. An indolent, phlegmatic, or dissipated lad would have made no such history. But he was industrious, a teetotaler, and free from vice. To him chloral had no suggestion of vice, but it robbed him of his reasoning power, and gave rein to an overwhelming idea of duty. How many such deaths will occur before the Government places restrictions upon the sale of chloral which will make its dangers obvious?"

Coupling the fact that poor weak human nature, when racked with disease and pain, is so lacking in self control, and that there is no law preventing the sale of dangerous drugs

without even a prescription or the unlimited refilling of a piece of written advice from the physician, it is a serious problem how best to save the patient from the ever present danger.

There can be no question that the profession is often unjustly blamed for the formation of drug habits upon the part of patients. Ever since the days of Adam the man who errs has been disposed to hold his Eve, his doctor, or some one besides himself responsible for his sin. Yet, we may well ask ourselves, are we as careful in this regard as we should be?

Now that the various remedies of this class are so conveniently and pleasantly prepared in the form of granules, triturates, parvules, syrup Doveri, bromidia, etc., I think it would be a good plan for physlcians to carry all such drugs with them, and when the conditions are such as to demand a narcotic or analgesic, instead of writing a prescription (which is intended for this occasion only, but may be used for an indefinite time without the doctor's knowledge), simply measure out the amount necessary to meet the emergency. The patient has no knowledge of what he is taking, and in my judgment, in ninety-nine cases out of a hundred, it is better he should not; the effect is more satisfactory and the danger of a continued use is removed.

We are all familiar with the symptoms produced by the habitual use of morphine, chloral, opium, cocaine, etc., but we may well begin to look out for the demoralizing effects of the habitual use of the comparatively new remedy, antipyrin. The reckless manner in which all classes and conditions of people are taking it in season and out of season can only have one result—the forming of an antipyrin habit upon the part of a great many persons. When I recall a statement made in public by one of the most eminent and able practitioners of this country (as evidencing the harmlessness of antipyrin) to the effect that he kept a bottle upon his mantelpiece which was used by every member of his family and their friends of all ages, at all times of the day, whenever they felt out of sorts, without reference to quantity, as they would simply take it without measurement the same as they had always used quinine, I am led to think that possibly our profession is partly responsible for the recklessness and sublime disregard of the dangers of "drugging" upon the part of the public.

I. N. Love.

Dr. Wm. Macewen's Contribution to Surgery.

The meeting of the British Medical Association held at Glasgow, Scotland, was a grand success. Few things stimulate us to greater exertion than the realization of the fact that we belong to a profession that is rapidly progressing. Such a meeting as the one at Glasgow is of incalculable benefit not to the attending members alone but to the world. Many strong men gave the profession the benefit of their wide and varied experience in dealing with disease. Among those who stood ont as leaders in that assembly of near two thousand physicians and surgeon, Mr. Wm. Macewen is perhaps deserving of the greatest honors. There is no method of teaching superior to actual demonstration. Dr. Macewen showed that he thoroughly appreciated this fact, by either taking his audience to his cases, or bringing his cases before his audience. His object was to present scientific facts and not pleasing, plausible theories. Many things that a few years ago were thought to be absolutely impossible, have time and again been accomplished in surgery. Among the remarkable results obtained by Dr. Macewen was the reforming from grafts of the entire shaft of a humerus of a boy, giving him a useful arm.

The editor of the *Brit. Med. Jour.*, writes of Dr. Macewen's address "On the Surgery of the Brain and Spinal Cord" in the following language. It is in many respects the most remarkable contribution to surgical literature which the present day has produced. When we recollect how rare were the occasions on which a few years since even the most enterprising surgeons thought it justifiable to at-

tempt any operation on the brain, and how exclusively such operations were restricted to dealing with the visible and tangible results of localized injuries, it seems almost magical to hear such a statement as the following of the experience of a single surgeon, and to know that these operations were undertaken not only to relieve the immediate and direct effects of injury, but also as curative methods in the most various affections, some consequent on old injury, others owuing no known cause. Here are Dr. Macewen's statistics:—"Of twenty-one cerebral cases (exclusive of fractures of the skull or other immediate effect of injury) in which operations have been performed by me, there have been three deaths and eighteen recoveries. Of those who died, all were in extremis when operated on. Two were for abscess of the brain, in one of which the pus had already burst into the lateral ventricles; in the other, suppurative thrombosis of the lateral sinus had previously led to pyemia and septic pneumonia. The third case was one in which there existed, besides a large subdural cyst over the one hemisphere, extensive softening at the seat of cerebral contusion on the opposite hemisphere, accompanied by edema of the brain. Of the eighteen who recovered, sixteen are still alive in good health, and most are at work, leaving two who have since died, one eight years after the operation, from Bright's disease, she in the interval being quite well and able to work; the other forty-seven days after the operation, after the abscess was perfectly healed, from an acute attack of tubercular enteritis."

The conditions which have rendered possible this great advance in surgery are stated by our author as two, namely, (1) the absence of consecutive inflammation of the brain and its membranes after operation, due to the improved operative methods of modern surgery; and (2) the possibility of inferring the locality of a limited irritating lesion in the accessible portions of the brain which has been brought about by the researches of modern pathologists,dating from Broca's discovery in 1861. Of these pathologists perhaps the first place is due to our countrymen, Hughlings Jackson and Ferrier, and it is only right to remember the great part which direct experiment has borne in producing this inestimable advance in surgery which has already achieved much in saving life, and which promises so much more in the future. These researches have established (to use Dr. Macewen's words) the great fact that "there are certain regions of the brain in intimate relation with the movement and sensation of certain parts of the body, which, in the presence of either irritative or destructive lesions give rise to phenomena which are of the greatest diagnostic value."

It is this cardinal fact of which Dr. Macewen has been the first to make such bold and such successful use. His paper begins with a modest and succinct account of seven cases in his own practice between the years 1876 and 1883,in which limited lesions of the brain were accurately diagnosed and localized by their symptoms, and were exposed by operation, and the irritating material removed. In the first case the operation, though urged during life,was negatived, and was performed after death; but the case is important as showing the reliability of the means of diagnosis, and must have powerfully supported the surgeon in subsequent operations. It was one of abscess in Broca's lobe, following an old injury. The other six cases were, one of traumatic ecchymosis of blood beneath the dura mater; one of idiopathic tumor of the dura mater; one of large cerebral abscess, which before operation had burst into the lateral ventricle (death followed the operation, which was performed in extremis); one of traumatic effusion of blood, the locality of which was diagnosed from motor symptoms only, the seat of injury being unknown; one of syphilitic tumor; and one of extravasation of blood in the white substance of the motor cortex of the ascending convolution. With the one exception indicated, all these operations proved successful, and they all occurred before the case under the care of Dr. Bennet and Mr. Godlee, which attracted so much attention in London in 1884. With indisputa-

ble justice, therefore, may Dr. Macewen claim the proud distinction of having been the leader in this country, and we believe in the world, of this great advance in our art.

Of the future of cerebral surgery it is encouraging to find Dr. Macewen speaking with confidence. Obviously the great question is how far diagnostic signs are trustworthy. "First, are the localizing motor phenomena reliable guides to the diagnosis of cerebral lesions situated in the motor cortex? My answer is unhesitatingly affirmative. Each case, however, requires to be studied on its own merits, the whole phenomena presented the unobtrusive as well as the prominent features must be carefully searched for, the degree in which each is present must be accurately measured, and the whole weighed and compared with former experience before drawing a conclusion."

"In many cases the evidences of local lesions are so distinct that a diagnosis is easy; in others they are so intricate that a prolonged and minute investigation is necessary to decipher them, while there are still others in which the signs are so perplexing that at best an approximation only can be arrived at. To lay bare a certain known convolution on a cerebral surface and observe the results of its stimulation is an easier task than to take what appears to be a tangled skein of nerve phenomena, such as is presented by many lesions of the complex brain of man, and to relegate each to its true source and infer from a study of the whole what particular parts of the brain are affected."

Clearly, then, much caution, much careful study, and much experience are needed by all surgeons who venture on these operations. Dr. Macewen has shown unmistakably that he possesses these requisites; but his example is not to be lightly followed by persons who do not possess them, or the progress of this new branch of surgery will be checked by disasters which more mature wisdom and more caution would have avoided.

Dr. Macewen relates several interesting cases to show that "the motor and sensory phenomena form reliable guides to localization of lesions in the central convolutions," and a most important and suggestive case to prove that "the diagnosis of cerebral lesions in non-motor regions may be made from sensory phenomena. A man who had received an injury about a year previously suffered from deep melancholy and strong homicidal impulses, relieved by paroxysms of pain in the head of indefinite seat. Though the pain was excruciating, he welcomed it, as it temporarily dispelled the almost irresistible desire to kill his wife or children or other people. Prior to receiving this injury he was perfectly free from impulses of this kind, and had led a happy life with his family. Behind the angular process of the frontal there was a slight osseous depression, which could not account for his symptoms. There were no motor phenomena, but on minute inquiry it was discovered that immediately after the accident, and for about two weeks subsequently, he suffered from psychical blindness. Physically he could see, but what he saw conveyed no impression to his mind. An object presented itself before him which he could not make out, but when this object emitted sounds of human voice, he at once recognized it to be a man, who was one of his fellow workers. By eyesight he could not tell how many fingers he held up when he placed his own hand before his face, though by the exercise of his volition in the act, and by his own sensations, he was cognizant of the number. * * * These phenomena gave the key to the hidden lesion in his brain. On operation the angular gyrus was exposed, and it was found that a portion of the internal table of the skull had been detached from the outer, and had exercised pressure on the posterior portion of the supra-marginal convolution, while a corner of it had penetrated and lay imbedded in the anterior portion of the angular gyrus. The bone was removed from the brain and reimplanted in proper position, after which he became greatly relieved in his mental state, though still excitable. He had made no further allusion to his homicidal tendencies—which previously were obtrusive—and is now at work."

A case such as this is, indeed, a triumph of surgery, and one which a very short time since would have been regarded as a mere impossibility, but surgery has achieved such wonders lately that it is difficult to say now what is possible.

Much more in Dr. Macewen's experience of cerebral surgery deserves quotation and remark, such as the possibility of removing large portions of the motor area of the brain; the method of avoiding inflammation and false hernia cerebri after operation; the reimplantation of bone to fill the hiatus in the skull left by injury or made by operation; and the aid to diagnosis which may be furnished by the percussion-note of the skull; but we must refrain.

As to the operative surgery of the spinal column, Dr. Macewen mentions six cases in which the posterior arches of the vertebræ have been removed, four for the relief of paraplegia caused by pressure on the spinal cord. In reference to this he remarks: "The spinal membranes and the cord itself can be exposed, and neoplasms and encroachments upon the lumen of the canal may be removed therefrom without unduly hazarding life. Such interference is unsparingly condemned by writers on the subject, their remarks, however, being applied to injuries, as no such operations have been hitherto contemplated in idiopathic cases. They contend that they are full of danger, being difficult, prolonged, and attended by profuse hemorrhage; secondly, that the operation could hardly benefit the patient; and, thirdly, that no one has yet been able to present a successful case. Each of those points has now lost its validity.

"The first operations of this kind were undertaken by me for the relief of paraplegia due to angular curvature of the spine. In such cases pressure may be exerted on the cord either by connective tissue neoplasms, or by direct displacements of the bodies of the vertebræ, both lessening the lumen of the canal."

He illustrates this point by the description of a case in which paraplegia, with incontinence of urine and feces, was completely cured by removal of the laminæ of three dorsal vertebræ and a subjacent connective tissue tumor, and another similar case is referred to. Two similar cases, however, terminated fatally, in which the temperature before operation was irregular, indicating, it was thought, some activity in the tubercular disease at other parts of the cord. "Since this experience no case has been deemed fit for operation in which the temperature did not run an even, regular, and continuous afebrile course."

The other two cases were, one in which an abscess in the posterior mediastinum was successfully opened, and one in which paraplegia from traumatism was cured by elevating the arch of the twelfth dorsal and a subjacent mass of connective tissue.

"Here are, therefore," says Dr. Macewen, "six cases in which elevation of the posterior laminæ of the vetebræ has been performed. Four of these have completely recovered and two have died; one of those from extension of tubercular disease, months after the operation, and after the wound had healed, leaving one in which the operation possibly hastened the death of a patient, who was otherwise in a painfully helpless and hopeless condition.

"Such operations are now beginning to be praeticed by others. Mr. Horsley has within the last year published a successful case, in which a somewhat similar operation has been performed, for the removal of a small tumor of the theca, diagnosed by Dr. Gowers."

With these samples of Dr. Macewen's address, our readers will not think us extravagant in saying that it marks an epoch in surgery, the initial stage of a branch of our art obviously destined to a glorious and beneficent future. All honor to the surgeon who has so ably and so successfully led the way in this grand undertaking!

A Remarable Case of Rupture of the Uterus.

Surgeon-Major J. G. Pilcher, of India, reports in the *Lancet*, a case in which the

uterus ruptured and the fetus escaped into the peritoneal cavity. This occurred one morning, and at 7 P. M., the child was removed by abdominal section, the patient surviving till 10 A. M., the following day. The diagnosis was plain, as the child could be distinctly felt through the abdominal wall and a loop of omentum lay in the vagina.

CORRESPONDENCE.

LONDON LETTER.

LONDON, Aug. 11, 1888.

EDITOR REVIEW.—The fifty-sixth annual meeting of the British Medical Association, which is now being held in Glasgow, will terminate today. The Association has had a singularly prosperous career, especially of late years, and during the past year the number of its members has been increased from about 11,000 to about 12,000, a rate of increase that cannot be long maintained, as before many years are past the Association will practically include within its ranks all the qualified practitioners in the British Empire, for colonial practitioners as well as those in the mother country are eligible for membership. The success of the Association must be only partly attributed to these annual gatherings, a more important factor is the system of branches which have been established throughout the country and the colonies, and which are the means of inducing many to join who would not otherwise feel sufficient interest in it to do so, but, perhaps, the journal is the chief attraction to new members: this is supplied free to members, contains an enormous amount of material, deals with every variety of medical topics, is most ably conducted by that prince of medical journalists, Mr. Ernest Hart, and boasts a circulation of 14,500 copies a week.

The annual meeting is held in one of the large towns upon the invitation of the medical practitioners in that town, usually there is some degree of friendly competition between two or three of them, as to which shall have the honor, and when the Council of the Association has decided which invitation it will accept, the most distinguished practitioner in that town is proposed for election as president.

Next year the meeting is to held in Leeds, and Mr. Wheelhouse is to be president.

This year Prof. Gairdner occupied the post of honor, and fully maintained his already great reputation by his exceedingly thoughtful address, dealing with Hippocratic tradition, the physician of the middle ages, and the relation of medicine to religion in our times. An abstract of it would not do justice toits author, and I will content myself with a few extracts from the concluding sentences.

"The physician of the future will, I believe, be much more instead of less inclined to make his study of the Bible than hitherto, and in this respect will greatly differ from the representative and typical "Doctour of Physike" of the Canterbury tales. But he will study it in the spirit of modern scientific freedom, and of historical research, not under the influence of mere tradition and ecclesiastical authority. And thus only, as it seems to me, can the reconciliation of science and religion ever be brought about.

The physician of the future will do well if he remembers always the pernicious despotism which has been exercised over his art (though in a minor degree) by the fetters of dead orthodoxies, and will, therefore, be very slow to acknowledge their claims upon him to any more than a historical regard even in the realms of theology. But I desire you very especially to remark,as my own personal anticipation shared, I have no doubt, by many of those now present, that the physician in his character of student of Nature will make, and in the end will establish this claim to emancipation, not in virtue of any irreverent much less atheistic tendencies, but for the very reason that he has access to a revelation of God distinct from the written revelation and requiring a wholly different method of investigation. In obedience to this call he will, sooner or later, absolutely decline to walk in the leading-strings of ecclesiastical tradition. And in so doing he will

(far from fulfilling old Dan Chaucer's satirical description) studiously insist upon the Bible and especially the New Testament, and above all the recorded life words and works of our Lord himself, as containing by implications the charter of his emancipation, and the only perfectly free religious atmosphere as yet opened to human thought and inquiry."

Dr. Clifford Allbutt delivered the Address in Medicine, his subject being the Classification of Diseases by means of Comparative Nosology. Of this remarkable address a writer in the *Brit. Med. Jour.* says: "There can hardly be a greater stimulus to medical observation, or a greater intellectual enjoyment in medical study than to hear, read, and inwardly digest the Address in Medicine delivered by Dr. Allbutt. To encourage medical observation we want the gaps in present knowledge pointed out which we may fill, the new dominions we may make our own, for intellectual enjoyment we want some brief deductions from solutions of difficulties in the past, and some luminous suggestions of the difficulties in the present and the future. Dr. Allbutt was well aware of his responsibilities and well able to meet them."

The Address in Surgery fell to the lot of Sir George Macleod, who gave a most interesting review of the progress of surgery during the past half-century. What struck me most about it was his outspoken and strenuous advocacy of chloroform as against other anesthetics; it has been very much the fashion of late years to decry chloroform on account of its alleged dangers, Sir George believes that these are greatly exaggerated, and that they almost entirely disappear when the anesthetic is properly administered.

I believe that the best anesthetists in this countr ywill entirely agree with him, not only in this but in his statement that the quantity used is of no practical moment.

The rest of the address was occupied with a rapid review of the advances that have taken place in the surgery of the different regions of the body.

An excellent address was also given by Mr. Macewen on the surgery of the brain and spinal cord, a matter in which Mr. Macewen has been the pioneer. He is now able to claim that he has operated in 21 cerebral cases exclusive of injury, and that only three patients have died, all being in extremis at the time of operation. Of the 18 recoveries, two have since died, one 47 days after the operation from tuberculosis, the wound having quite healed, the other some eight years after the operation from Bright's disease. The rest of the patients are alive and in good health and most of them are at work. This is a result of which any man might be proud.

Of the addresses of the presidents of sections I have only space to notice that of Dr. Cheadle in the section of Diseases of Children. This subject is not usually deemed worthy of the exalted position of a section all to itself, in fact, only once before has it occupied that proud position at the meeting at Liverpool, when Dr. Gee occupied the presidential chair.

Dr. Cheadle dealt chiefly with the very deficient knowledge of the diseases of children possessed by most students at the time of passing their final examination, he discussed the causes of this and suggested remedies.

The chief fault, as it appears to me, is that the subject is so much ignored by examiners, there is usually a question set on one of the infectious disorders, but no effort is made to examine the men clinically on the subject, and so long as this condition of things lasts we may be quite sure that no student will give up much time to studying the subject, for the examination and not a knowledge of his profession is the goal of every student, and he will, therefore, always turn his attention to the things that are most likely to pay in an examination. Dr. Cheadle has undoubtedly pointed out a great blot in our educational system, and it is to be hoped that his remarks will be productive of much benefit, but as things are as present I do not think the students can be blamed if they more or less entirely ignore the subject.

Your readers will doubtless be interested to learn that Dr. A. Jacobi was invited to

open a discussion on diphtheria, and that much interest was displayed in the subject as also in the discussion on rickets which followed in the same section, in fact, these meetings were well attended as well as any in the whole gathering.

In the surgical section there was a discussion on the treatment of abscess in the lung, a subject which improved surgical procedures have rendered quite practicable, indeed, it is said that the lung resents interference less than any other organ in the body.

SELECTIONS.

AN ADDRESS ON OBSTETRICS AND GYNECOLOGY.

At the annual meeting of the British Medical Association, Dr. Thomas Madden More, F.R.C.S., Ed., delivered an address (*N. Y. Med. Jour.*,) of which the following is an abstract:

The progressive improvement of midwifery practice has been strikingly evinced during the past few years. Thus the pathology and preventive treatment of intra-uterine death and abortion have been freed from much of their former obscurity and difficulty by the recent writings of Dr. Priestly. The prevalence of puerperal septicemia, by epidemic outbursts of which, in my earlier days, I have repeatedly seen the crowded wards of a great maternity hospital decimated, has been largely diminished by the hygienic and antiseptic measures now adopted for its prevention. Whilst if septicemia should still occur, we are now armed with more scientific means for the curative treatment of this disease, which some years ago was generally classed among the incurable *opprobria* of our art. In like manner, by the adoption of improved methods for the prevention and treatment of post partum hemorrhage, that once frequent source of obstetric mortality has been almost completely removed. At the same time the throes and pain of labor have been rendered more endurable by employment of comparatively safe anesthetics, such as the mixture of two parts of ether and eau de Cologne with one of chloroform, which for nearly twenty years, I have found a generally efficient and agreeable anesthetic in such cases. Moreover, by judicious instrumental assistance, we may now, in many instances, safely abridge the duration of that formerly often long-protracted period of parturient suffering, which when a student, I have often seen allowed to continue unrelieved for forty and fifty, and even for eighty hours and upward. Lastly, the former appalling frequency of child-destroying operations has been reduced in an exact proportion to the increasing employment of the forceps. Nor have the limits of the utility of this instrument, as a substitute for the cephalotribe, craniotomy forceps, cranicolast, *et hoc genus omne*, been even yet fully reached.

THE USES OF THE FORCEPS, AND ITS IMPROVEMENT.—The main reason why any embryotomic instruments are still included in the ordinary obstetrical outfit appears to me the fact that most midwifery practitioners do not recognize sufficiently the compressive power of the long forceps, and, moreover, rely exclusively on some one form of forceps whether the head be above or within the pelvic cavity, and without reference to the kind of mechanical power—tractile, lever, or compressive—that may be specially required in each case. Desirable as it may be to carry as few instruments as possible in the obstetric bag, it is, nevertheless, impossible to combine in any one instrument properties so distinct as those referred to. In operative midwifery there should surely be some definite proportion between the power employed and the resistance to be overcome. Hence it seems about as needless to resort to an instrument of such compressive and lever power as the double-curved long forceps to assist delivery in an ordinary case of delay in the second stage as it would be to employ a steam-hammer to crack a walnut.

I have endeavored to carry out these views in the two instruments now exhibited, which have been considerably modified, and, as I think, improved in the course of experience

since I first demonstrated the use of their original models. The first is a short straight traction forceps, the blades of which are only six inches in length, and are so curved as to fit the fetal head very exactly, and so widely penetrated as to allow the scalp to protrude when applied, and thus protect the maternal passage during extraction. This instrument, as may be seen, is very portable, and, locking loosely, is easily applied; and being a really efficient tractor, as I have proved by experience of its use in upward of three hundred cases, may, therefore, be employed in nine-tenths of the cases in which any instrumental assistance is required—namely, those in which delay arises from inertia in the second stage of labor.

The second instrument shown is intended only for cases of difficulty from disproportion or pelvic flattening. The blades are, therefore, of considerable length and strength, are approximated by a powerful screw, by which the amount of compressive force exercised may be exactly regulated. The affixed traction-rods are closed, or separated by a simple mechanical arrangement. This instrument, as will be seen, is not only a tractor and lever, but is a compressor of great power, with which the fetal head may be gradually moulded out and compressed within the limits of viability, so as to admit of delivery through pelves from which a living child could hardly be otherwise extracted. I need hardly add that such an instrument requires very great caution in its use, and should be employed only in the exceptional cases for which it is designed, and as a substitute for embryotomic implements.

Recent Progress of Gynecology.—The development of this branch of medicine since our association last met in Scotland has been still more remarkable than thate ffected in the practice of midwifery during this period. Thus for example, only a few years ago many of the most frequent forms of intra-uterine and circum-uterine disease were beyond the diagnostic and remedial reach of gynecologists, then unprovided with those means of rapidly and thoroughly dilating the cervical canal, or with the many other methods of direct investigation by the aid of which any well-educated practitioner may recognize and treat intra-uterine, ovarian, tubal, and other intra-peritoneal and pelvic complaints that baffled detection or treatment. Nor in those pre antiseptic days could have been anticipated the wonderfully successful results since realized from laparotomy operations, and more especially ovariotomy, as well from still more recent developments of intra-peritoneal surgery in tubal and other diseases, including even peritonitis and cancer of the uterus, the latter a subject which has been recently elucidated in Dr. J. Williams's Harveian lectures. In the last named cases, however, it is a debatable question whether we should persevere further with the intra-peritoneal procedure for the removal of the uterus introduced by Freund, in view of the better results obtained from the vaginal method advocated by Dr. Martin, of Berlin; and also whether in the latter case the operation should be limited, as recommended by Dr. Williams and Dr. Braithwaite, to the removal of the cancerous portion, and not be extended to the extirpation of the entire uterus.

Only within the time referred to has the general correctness of Dr. Graily Hewitt's views with regard to the importance and treatment of uterine displacements and flexions become commonly accepted. Neither were the symptoms and appropriate treatment of ovarian displacements understood until a more recent period, when attention was directed to them by Dr. Barnes' able paper on this subject, in the *Amer. Jour. of Obst.*, and in a minor degree, perhaps, also by a memoir of mine on the same topic in the "Transactions of the Irish Academy of Medicine." Nor is it so long since the bearing of cervical lacerations on pelvic pathology, as first demonstrated by Dr. Emmet, of New York, first became recognized in this country. Finally, the diagnosis, importance, and curability of diseases of the uterine appendages, such as hydrosalpinx and pyosalpinx, together with several other of the causes of female suffering and death, were, in like manner, practi-

cally ignored by gynecologists until within a very recent period.

Influences of Prejudice and Fashion in Gynecological Progress.—In the history of many of the successive developments of gynecology just referred to we may observe proofs not only of the progress of our art, but also of the two causes which have temporarily retarded its advancement. The first is the opposition generally offered in matters medical, as in most others, to all innovations, and the consequent reaction by which the pendulum of professional opinion is swung from one extreme to the other, exaggerated over-estimation thus generally succeeding to earlier adverse prejudices. The second is the potent influence of fashion on medical opinion and practice; for, strange as it may be why this should be the case, it is, nevertheless, true that—

"In physic, as in fashion, we find
The newest is ever the rage of mankind."

This is strikingly illustrated in gynecological practice, in which it now seems almost as much the fashion to ascribe various obscure complaints of women to ovarian and tubal disorders as, a few years ago, it was to attribute similar ailments to uterine flexions and displacements; or as, ten years earlien, it was the mode to credit them to chronic inflammation, or what was then regarded as ulceration of the neck of the womb; or yet, a century previously, to set them down, in the phraseology of our professional ancestors, to "the spleen" or "the vapors."

Gynecological Specialism and Woman's Place Therein.—In this connection I may venture to observe that I can not agree with those who are opposed to the admission of women into the practice of our department of medico-chirurgical science for which their sex should apparently render them so especially adapted. I can see no valid reason why any well-qualified practitioner, male or female, should not be welcomed among us. Nor, if there are women who prefer the medical attendance of their own sex, does it seem fair that in this age of free trade they should not be afforded every opportunity of exercising their discretion in a matter so personal to themselves. For my own part, I greatly doubt that, in these countries at least, "the lady doctors" (as they are termed, will ever replace the ruder sex in general estimation of their sick sisters. But, if not here, elsewhere there is unquestionably an ample field for female practitioners, and more especially in India and other Oriental countries, where millions of suffering women and children are fanatically excluded from the posibility of any other skilled professional assistance; and I therefore think that such practitioners are entitled to the admission into our ranks in the British Medical Association.

Laparotomy in Relation to Gynecology.—Foremost among the proofs of modern gynecological progress the most signal is that afforded by the results of abdominal surgery in the treatment of ovarian tumors, as demonstrated in countless cases at home and abroad and in this country, more especially in the practice of Sir Spencer Wells, Dr. Keith, Mr. Lawson Tait, Dr. Bantock, Dr. Savage, Mr. Thornton, and other specialists in this department of operative surgery, which, not very many years since, was so loudly and unfairly decried. Whether this should encourage the present frequency of resort to laparotomy in the various other intraperitoneal morbid conditions in which it is now advocated or not is, however, another question, and one which, I think, may be still advantageously considered.

Treatment of Fallopian-Tube Diseases.—With respect to the tubal diseases, to the operative treatment of which so much attention is now devoted, and which I have elsewhere fully discussed, I shall only here again observe that, while recognizing the fact that in some instances of pyosalpinx and hydrosalpinx the removal of the diseased uterine appendages affords the only available means of treatment, and fully appreciating the surgical skill by which operations for this purpose have been brought to their present perfection, I have not, in my own experience, found laparotomy operations as generally necessary in such cases as they are apparently

now deemed by others. On the contrary, I am confirmed, by increasing observation, in the belief that in some instances these tubal diseases, more especially in cases of hydrosalpinx, may terminate favorably without any surgical treatment, and, moreover, that in other cases such collections, whether purulent or serous, may be evacuated by cautious aspiration through the vaginal roof. Very recently I had an opportunity of again proving the advantages of this method of treatment in the case of a lady who, after many months of suffering, was sent to me from a distant country to have the affected uterine appendages removed, but whom I succeeded in relieving of her trouble, with the assistance of my friend, Dr. Duke, by aspirating the Fallopian tube, and thus removing about ten drams of serous fluid from the distended duct. I would therefore still urge the expediency of a fair trial of other less serious methods of treatment before resorting to the extirpation of the uterine appendages in these cases generally.

Operative Treatment of Uterine Tumors.—It would be impossible, within the limits of this address, to enter at length into the consideration of a question so large and so controversial as the general necessity for surgical interposition in the treatment of uterine fibromata. This, I am glad to see, will be brought before you during this meeting by those eminently qualified to speak on the subject; and I trust that in the ensuing discussion new light may be thrown on the comparative merits of the various intraperitoneal and vaginal surgical procedures advocated in such cases, as well as on the value of electrolytical treatment. Nor, in this connection, should the possibility of arresting the growth of these tumors in some instances, by appropriate medical treatment, as well as the greater probability of thus effectively checking hemorrhage so occasioned, and more especially by the free administration of ergot and iodide of potassium, to which I have elsewhere called attention, be entirely lost sight of.

With regard to the former, or surgical method, I may, however, venture to repeat that, in the majority of cases of interstitial and sub-peritoneal uterine tumors, no active treatment whatever appears to me essential, inasmuch as such growths seldom, if ever, destroy life, and in many cases become arrested in their development and quiescent in their symptoms at the menopause, or may even possibly disappear altogether in the course of time. The latter event is, however, far too exceptional to have much influence in determining the expediency of surgical treatment, and more especially that by oophorectomy, which is unquestionably called for in the case of fast-grown fibroids, giving rise to otherwise uncontrollable urgent hemorrhagic or pressure troubles, particularly when occuring in young patients.

With regard to hysterectomy, although exceptional cases may occur in which this procedure is necessitated, the average mortality that has followed its performace is such as to forbid its general employment, as an operation of election, in a disease, the average mortality of which, when left to nature, is so comparatively insignificant. While as to myomotomy, in view of its too common results, I can only repeat that it would appear to me a method by which a patient may be effectually removed from a tumor, rather than as an operation by which a tumor can be safely removed from a patient.

Treatment of Uterine Fibroids by Electricity.—Although I have so nearly exhausted the allotted limits of this address, I can not omit a few words in reference to the latest and most promising of the methods available in the treatment of uterine fibromata—namely, that by electricity. Within the past year and a half I have had occasion to try this method, in some ten instances, in my hospital and private practice; and so far as the arrest of hemorrhage is concerned, the result was most satisfactory, the bleeding being thus arrested in six of these cases. But with regard to the cure of the disease from this treatment, the possibility of which had been demonstrated in the experience of Dr. Apostoli and others, who had employed it on

a much larger scale, I can only say that while I have not as yet seen the complete subsidence of the tumor effected in any of the cases so treated by myself, in three of them its apparent bulk became distinctly diminished even after six weeks' or two months' treatment of this kind. It should, perhaps, be added that in all these instances I used Dr. Apostoli's original plastic clay abdominal electrode, the current being, of course, monopolar and acting directly on the growth by the intra-uterine pole, and was obtained from a powerful Leclanché battery of an estimated maximum current strength of 250 milliampères. In the first of my cases I employed the electrolytic negative current, but after a little experience I abandoned this, and in the subsequent trials used only the positive current, which, although non-energetic as a galvano-caustic, is far less liable to give rise to trouble, and, from its decided hemostatic action, is more suitable to these cases of large hemorrhage-producing tumors, in which alone this or any other active treatment seemed to me generally necessary.

If, however, the results obtained by Dr. Cutter, and, still more conspicuously, those recorded by Dr. Apostoli, from the employment of electricity—namely, permanent benefit in ninety-five per cent. of the cases of fibromata thus treated by him—should be confirmed, as I hope may possibly be the case, by the the experience of those who are here about to discuss this disease, then we might well congratulate ourselves on having at last arrived within sight of the long-sought-for safe and effectual curative treatment of uterine tumors.

The foregoing resume of some of the recent developments of obstetric and gynecological science, imperfect as it is, affords a sufficient vindication of our branch of medicine from the aspersions which have been poured upon its followers. These advances and their results are surely more than enough to show that those by whom so much has been accomplished are engaged in no narrow specialism; but, on the contrary, should rank high in that noble and ever-progressive profession of medicine whose great objects are the prolongation of life and the relief of every form of human suffering.

In conclusion, gentlemen, it only remains for me again to thank you for the honor you have here conferred upon me and for the patience with which you have listened to this address.

OINTMENT BASES.

In an article published in the *Therapeutic Gazette*, Aug., Dr. H.W. Stelwagon gives some practical suggestions as to the best bases to be used in making ointments. He says: "In acute diseases, as a rule, protection alone is desired and an ointment of great penetrative power is often not only without beneficial result but is prejudicial."

It is well known that the excipient has much to do with the amount of absorption that takes place when drugs are applied to the surface of the body.

Dr. Stelwagon says that to prescribe such liquid preparations as oil of cade, carbolic acid, and the like, to be added to lard, cosmoline, or cold cream would if the liquid were present even in moderate quantity, make a mass too soft for comfortable keeping or use. On the contrary if the medicament is in the form of powder, as starch or oxide of zinc, a soft base is a necessity, as otherwise the ointment would be too stiff for use,—the tendency to rancidity is to a degree obviated by the addition of a few minims of balsam of Peru, benzoin, or salicylic acid, "without, except in acute and markedly inflammatory diseases, compromising the therapeutic result."

Dr. Stelwagon continues as follows:

Lard.—This base possesses penetrating and softening powers scarcely, if at all, inferior to any yet introduced; it is white, and therefore, in an ointment sense, clean; it is found to agree with most skins; in cold seasons its consistence is such that it may be used not only by inuention, but, if it is to be applied to exposed parts, also as a protective; it allows the addition of varying quantities, up to a fair proportion, of pulverulent substances,

without becoming too stiff for use. Its disadvantages are that it tends rapidly to rancidity, and, as with all unguents, except cooling ointments,—those containing water,—is not acceptable to certain skins; it does not alone permit, without becoming too soft for satisfactory use, the incorporation of liquid medicaments; its low melting-point makes it unfit for summer use, unless mixed or stiffened with other substances.

Cold Cream (Ungt. Aquæ Rosæ.)—This base, if properly made, is cooling, and therefore acceptable to almost all skins; it has, however, very little penetrative power, and tends to rancidity. In its other properties—consistence, etc.—it practically has the same advantages and disadvantages as lard.

Suet.—Unirritating and softening, admitting of the incorporation of a large proportion of liquid without becoming too soft; its disadvantages are that it is alone too stiff for use, and tends to rancidity,

Vaseline and Cosmoline.—No tendency to become rancid; acceptable to most skins. Disadvantages: very little penetrative power, melting-point about the same as lard, and hence the same disadvantages in regard to consistence, etc.; occasionally irritating; stains the linen a slight brownish tinge. These preparations may be procured, however, as white ointments, but as such they are not so innocuous as the unbleached products.

Petrolatum.—Is essentially the same as the preceding substances,—vaseline and cosmoline,—but, as recommended by the Pharmacopœia, the melting point is higher, varying, in fact, from 105° to 125°; this is regulated by the admixture of paraffin. The advantage over the foregoing is that of greater consistence, and, by ordering the preparation at different melting-points, according to the season and to the consistence of the medicament to be added, it becomes a valuable base.

Lanolin.—It is said to possess remarkable penetrating properties, and, according to my experience, this may be measurably admitted. Its superiority in this respect to lard, however, is still open to question. It admits of the admixture of unequal percentage of water, and may then be used as a cooling ointment; it may be inferred also that such remedies as oil of cade and other liquids may be incorporated without the resulting ointment becoming too soft for use. Its disadvantages are, that it is too stiff to be used alone; the sheepy odor is not entirely absent; it tends, although slowly, to change, and it is occasionally found to be irritating.

Unguentum Diachyli.—Is soothing and unirritating, and about the consistence of lard. Its great disadvantage is its unstable character, tending rapidly to become rancid, and also becoming tough and stringy after a short time. Its preparation is somewhat difficult and tedious, and hence that found in the different shops is apt to vary considerably.

Mollin.—Is about the consistence of lard, and admits of being thoroughly rubbed into the skin, possessing a moderate amount of penetrative power. Inasmuch as it is a soapy base, its disadvantages for general ointment purposes are evident. This property, however, is occasionally desirable, as, for instance, as a base for the incorporation of such drugs as sulphur, styrax, tar, etc., in the treatment of scabies, sluggish acne cases, etc.

Sapo Viridis.—This as an ointment base is rarely employed, but in exceptional instances it is for this purpose exceedingly valuable. The advantage of this preparation is its strong detersive property, and it may be even caustic. Its use, therefore, is within narrow limits only.

In endeavoring to utilize the memoranda above noted, which really are in themselves therapeutic indications, the object of the application must be kept in view. Thus, if a penetrating ointment base is desired, so that the remedy may be brought in intimate association with the skin, as often called for in such diseases as acne, psoriasis, certain forms of eczema, alopecia, etc., then the base is to be made up of lard, suet, or lanolin, or a mixture of two or more of these; the selection depending also upon the consistence of the medicament to be incorporated. If protection and a moderate amount of penetration

and softening are desired, as often in subacute conditions, then cold cream, or any of the above, mixed with petrolatum, may be prescribed. On the other hand, if simple protection is aimed at, as in zoster, pemphigoid diseases, burns, etc., then petrolatum, unguentum diachyli, alone or mixed with cold cream or lard, may be employed. If it is desired to emphasize the action of the remedy incorporated, and at the same time employ a base active in itself, as in thickened eczematous patches, in callosities, sluggish forms of acne, and the like, then recourse may be had to mollin and sapo viridis. Finally, in regard to consistence and rancidity; the former may be regulated by the proper admixture of two or more bases, or the addition of wax, spermaceti, or similar substances; the latter may be measurably obviated by the addition of a minute amount of benzoic ocid, salicylic acid; or balsam of Peru.

QUACK ADVERTISEMENTS IN RELIGIOUS NEWSPAPERS.

When a wrong is assailed in general terms, the assault is apt to be interesting to those who participate in it, and perhaps to those who witness it; but there is some danger that it may not accomplish very much. This truth is illustrated by the results which have so far followed the attempts of various medical journals in this country to abate the evil of quack advertisements in religious newspapers. These attempts have been approved and applauded by medical men, and those who made them knew they were discharging a useful office. But the religious newspapers have not been cured; and, indeed, they do not seem to have improved materially.

One of the reasons for this is, no doubt, the fact that the attack has not been sufficiently sharp on any portion of the line to break it, and that, while the whole religious press bore the brunt of the assault, no one part experienced any special inconvenience from it.

What is now needed, we believe, is that the force of public opinion should be concentrated upon conspicuous offenders, and that an attempt should be made to compel them to regard the principles of honor and decency which they have so long violated. This is a method which is far from pleasant, but it is our honest opinion that no kindlier one will effect the object.

That our readers may understand why we say this, we inform them that we took the trouble to send our Editorial of December 31, 1887—which we intended to be temperate, though plain spoken—to the editor of almost every religious paper in the United States, and that by personal correspondence we have endeavored to enlist the self-respecting religious papers on the side of right in this matter. Some good has been accomplished. A few of the religious papers have expressed themselves as we hoped they would. More than this, a number of our medical contemporaries have added their efforts to ours, while the Medical Society of the State of Arkansas has issued a series of resolutions against the evil of false and misleading advertisements in religious newspapers, and these resolutions have been approved and endorsed by the American Medical Association.

We are glad to note, also, in the *Reporter*, June 9, 1888, that a representative religious body—the General Assembly of the Presbyterian Church—at its last meeting, in Philadelphia, received, and, we believe, endorsed, an overture of a like character.

This much is cause for thankfulness. But much more remains to be done. How much may be judged from the fact that, in spite of all we have said, one of the most influential Presbyterian papers in the land persistently continues to publish advertisements which any man of common sense would know to be absolutely and unblushingly false. In a recent issue of this paper, there were no less than seven advertisements which deserve to be characterized in this way, including sure cures for deafness, cancer, fits, and consumption! And the difficulty of dealing with cases of this kind may be estimated when we state that the editor of the *Reporter* has made a special attempt, by writing personally to

the editor, who is also the owner of the paper referred to, to induce him to correct the wrong he was committing.

Another illustration is furnished by one of the representative papers of the Methodist Church—a paper which is, we believe, directly governed by the ruling body of that church. The *St. Joseph Medical Herald*, in May, 1888, speaking on this subject, says that this paper "sells the columns which should be filled with religious matter to the vilest impostors and most indecent advertisements of which the country can boast." This is strong language; but it is fully warranted by the circumstances.

We appreciate the good work done by religious papers, and it is for this reason that we wish to see them freed from a reproach which interferes with their usefulness and injures the cause of religion. We have tried to bring this about in a way which should not give needles offense. But as we believe that no reform is ever accomplished without somebody being hurt, we shall not hesitate, when next we take this subject up, to lay our hands on particular religious papers and say plainly to the editor of each: "Thou art the man!"

We do not now take this step, because we hope that some to whom this charge would apply to-day will clear themselves before the time arrives to make it.

We beg our medical contemporaries to join their efforts to ours to cure this evil as gently as may be possible, but with all the firmness that may be necessary; and we beg our religious contemporaries to make our cause their own, so that we may seem rather to offer counsel to those who wish to know what is right, than to formulate censure against those who choose to do what is wrong. Physicians and the clergy are usually sympathetic with, and helpful to each other; and it would be a pity if the religious papers were to maintain an attitude which invites the distrust and—it must be said—the contempt of those who should be their best friends.—*Ed. Med. and Surg. Reporter.*

THE CONTAGION OF PNEUMONIA.

Now that the treatment of pneumonia is receiving an unusual amount of consideration, it may be well to revert, briefly, to some of the other aspects of that disease: and perhaps it is just the fashion of speaking of it as "that disease" that has led to a great deal of aimless discussion concerning its treatment. It was a fancy of Wunderlich's to say that if we could see the lungs as we see the skin, we would have as many varieties of pneumonia as we have of eczema; and perhaps, if we followed up the thought, if we said "those diseases," rather than "that disease," the debating ground would become much plainer. Certainly the researches of the last few years into the causes of pneumonia have not tended to prove the unity of its causation, while all the weight of evidence goes to prove that a variety of micro-organisms, of widely different orders, may produce pneumonias histologically similar. For this reason our knowledge of the etiology of pneumonia is far less than that of many diseases apparently more recondite, though it is even now possible to make some leading generalizations of interest and even to draw some conclusions of practical importance. This has just been done by Netter in a very thorough and comprehensive study (*Arch. gen de Med.*, Juillet, 1888), and, while his results do not depart essentially from what was known or generally believed, they are interesting from the application he gives them.

According to Netter, pneumonia is a transmissible, contagious disease. The contagion is due to specific,pathogenic micro-organisms, which multiply in the diseased focus,and which leaving the body in various ways, are especially abundant in the products of expectoration. Contagion from the sick is still possible, long after recovery, and for two reasons. The first is: the contagion resists desiccation and may thus preserve its activity outside of the body, on indifferent substances, to which it adheres. The second reason is that the contagion is not destroyed in the patient after the termination of the disease, as are most in-

fectious germs. Long after recovery, perhaps indefinitely, the subjects of the disease have in their mouths active germs, and this activity explains the great number of recurrences in pneumonia and the occurrence of multiple outbreaks in one family or house. The importance of these views, if correct, must be very great, and their bearing on prophylaxis must be of prime importance.

In regard to isolation, great advances have been made in late years over the views formerly entertained. Netter does not believe that a rigorous isolation is necessary in pneumonia. The relatives should not be allowed to pass the night in the same room with the sick, much less occupy the same bed. The danger of the well using the handkerchief of the sick, or *vice versa*, is not entirely imaginary. In hospitals, cases of pneumonia should not be in small wards, or, if so, should at least be alone. The contagion is but feebly diffusible, and all the cases published show that contagion is especially liable to occur in small rooms badly aired. It is particularly necessary to avoid exposing patients with typhoid fever, acute exanthemata, acute affections of the respiratory tract, nephritis and diabetes to the danger of pneumonia. The tuberculizing influence of hospitalism, in these conditions, is well recognized, and it is quite as true that the diseases named favor the development of pneumonia.

The sputa, being the habitual if not the only vehicle of contagion, must be disinfected. So far as our present knowledge goes, corrosive sublimate is the best means we have for this purpose. In hospitals having disinfecting apparatus, the clothing and linen of cases of pneumonia should be submitted to the same process as in other contagious diseases. Other indications might be drawn from the modern idea of the persistent activity of germs in the mouths of recovered persons, though this is evidently a subject too new for profitable discussion.

These views we believe to express all that can at this time be safely concluded from the study of the microbic origin of pneumonia. Before we can dogmatize about treatment, it would be well to wait, not only until our knowledge of causes is greater, but even until we have made a more careful clinical study of the natural history of the disease than has yet been done.—*Ed. Med. News.*

THE PERFECT VAGINAL TAMPON.

BY ROBERT T. MORRIS, M. D., NEW YORK.

If there *is* anything new in my method of constructing and using this tampon I am sorry, as the satisfaction derived from the results of its employment is so great that I would gladly hear that the thing has been used for many years by many men.

Adopting Wylie's suggestions as to the form of a cylindrical tampon, to be made with absorbent cotton, and the idea of some one else as to the value of wool, I combined the two in such a way as to please patients.

It is not easy to give the exact proportions of cotton and wool to be used; but, like a woman's receipt for cake, we take "about so much of each ingredient." The wool is wound, with several half-hitches of thread, into a loose elastic cylinder two or three inches in length, and about one inch in diameter. This cylinder is then covered with a layer of absorbent cotton one-quarter of an inch thick, except at one end, where the wool is allowed to protrude a little. The cotton is bound on with three or four more half-hitches of thread.

The tampon, now complete mechanically, is dipped into Wylie's solution (alum, ʒij., boroglyceride, ℥j; glycerine ℥iij.), and is then complete chemically. It is inserted with the aid of a Sims' speculum and long forceps. Hamilton's bullet forceps are the best ones for the purpose.

The philosophy of the apparatus is as follows: The elastic wool centre prevents the cotton from contracting into a hard mass, and it acts as a drainage-tube because, being non-absorbent, it allows fluids to percolate freely through it. The end of wool which protrudes from the tampon nestles just within the sphincter vaginæ, and, being springy and

spready, it prevents the tampon from slipping out.

The absorbent cotton-covering holds the medicated solution in contact with congested tissues, and allows of transmission of discharges into the wool centre.

The glycerine, because of its affinity for water, causes a rapid exosmosis of serum from congested tissues, and in such quantities that a patient will frequently have to wear napkins to catch it. The alum acts in its well known way as an astringent; and the boroglyceride as an antiseptic prevents fermentable fluids within the vagina from decomposing. This tampon, above described, may be left in the vagina for several days at a time, and it will remain neat and sweet, and will not irritate the membranes with which it comes in contact.

In a case of ordinary catarrh of the cervix uteri, with obstructive dysmenorrhea and congestion of the uterus, I would use the tampon in the following way: it would be introduced once every four days until there was a marked decrease in the evidences of inflammation. I should then give the patient laughing gas or chloroform, dilate the cervix uteri widely, swab out the uterine canal with absorbent cotton held in Hamilton's bullet forceps, wash out the uterine canal with 1 to 30 carbolic-acid solution injected through an Otis urethral cocaine injector, and should finish the operation by inserting a glass or hard rubber intrauterine drainage-tube dipped in Wylie's solution. The tampon should then be inserted into the vagina, and left in place for two days. I should then remove the tampon and the tube, and should reinsert the tampon once in every four days thereafter, until the patient was sufficiently happy.

In a case of retroversion of the uterus, in which the organ could be easily replaced, the patient would be put in the knee-chest position. Air being then allowed to enter the vagina the tampon should be inserted in such a way as to extend into the space behind the uterus, the free-wool end resting just within the sphincter vaginæ.

In a case of chronic pelvic cellulitis, in which the tampon would be used simply as a carrier of the medicated solution, it would be advisable to make a fresh application every day or every other day.

It is not necessary for me to go into further details. A little practice is required for making this perfect tampon; but when one has become somewhat expert at it, the apparatus will give greater satisfaction than any other one thing that I know of as a medical or surgical appliance. The question as to the exact size and shape of the tampon for any given case is to be decided, of course, at the bedside. One of my patients, who has a cystocele and a retroverted prolapsed uterus, is wearing a tampon nearly five inches long, flattened, and about two and one-half inches broad. Another one, a delicate little virgin, with catarrh of the cervix uteri, is wearing a tampon about an inch and a half long, round, and three quarters of an inch in diameter.

Some of the tampons that are made after my description will not have a projecting tuft of wool at the lower end, and the makers will wonder why the apparatus does not stay in better. A majority of first specimens will be wound so tightly that the uterus will be irritated, or so loosely that the uterus is not comfortably supported.—*Medical Record.*

A MORE RATIONAL METHOD OF TREATING THE FLEXIONS OF THE UTERUS.

BY GEO. H. NOBLE, M. D., ATLANTA, GA.

It is not with the idea of supplanting the stem pessary that I present my views upon the treatment of uterine flexions, but of taking its place in certain cases, and of lending to it a valuable aid in the treatment of others.

The dangers of the stem in the hands of careless operators have brought down upon it unjust condemnation; and as we always have some such persons with us, it is well to add all we can to the safety of the treatment.

In my hands, however, the stem has given excellent results, but its use has always been pre-

ceded by a preparatory treatment calculated to engender a healthy condition and tolerance of a foreign body; yet I have never been entirely free of the fear that each succeeding case might meet with some accident or injury for I look upon the reduction of a flexed uterus after it has become indurated as an infliction, to some extent, of a traumatism, and by the immediate use of the stem we incur the liability of an increase of the same.

But I am satisfied, upon the other hand, that the reduction of a flexion, with the uterus in a soft and pliable condition, is a safe and easy matter. So it occurred to me that the removal of the induration, the thorough softening of the tissues at the point of flexion, and the induction of as healthy a condition as possible before attempting to straighten it, was a more rational view of the subject, and acting upon that idea, I adopted the cervical dressing as the best means of accomplishing it.

The treatment should be preceded with the hot-water and the glycerine tampon,if there be much tenderness or engorgement, until relief is secured.

Then, seizing the cervix with a tenaculum, small strips of antiseptic wool or cotton are passed into the cervical canal down to the point of flexion.

These are increased from day to day until the cervix is distended, and its walls well thinned, when a free view of its interior down to the angle may be obtained. Then, after a week or ten days, a small part of the dressing should be carried just beyond the angle and carefully increased at subsequent treatments until the uterus is somewhat straightened, or until the cervix, including the angle, will collapse when the dressing is removed.

The uterus should then be straightened bimanually, and if a retro flexion, placed in the anteverted position. To maintain this position, I usually employ an Emmet pessary, but so soon as the uterus regains its normal fimness it should be replaced by a smaller and better instrument.

In anteflexions we have gravitation acting against instead of in our favor, so it becomes necessary to employ either the stem or an exceptionally well fitting anteversion pessary to hold the uterus straight until it again becomes firm. The stem is the easiest to apply and, therefore, more frequently employed.

I also use in exceptional cases of retroflexion a thin flat elastic stem to keep the uterus in place, but only where for unavoidable reasons, the uterus must be replaced before it has been sufficiently reduced in size to remain in position without the instrument. This is contrary to my usual line of practice, but there are exceptions to all rules, and the treatment must vary to suit circumstances.

After the engorgement or tenderness has been somewhat relieved, the cervix can be packed with impunity and the cavity of the body with safety, if no pressure is made upon the fundus, but we should bear in mind the importance of antiseptics, and the fact that the os, free of tolerance, decreases, or susceptibility to irritants increases as we approach the fundus from the os externum.

Of the antiseptics, iodoform is preferable, but boracic acid in liberal quantities will last for a day. Hydronaphthol is good, but wood-tar is better, though somewhat stimulating. It is immaterial what antiseptics are employed so they are effective and non-irritating.

A thorough and careful test will commend this treatment to the profession.—*Practice.*

Paris Congress on Tuberculosis.—The President summarized the experiments made at the veterinary school at Lyons, which established the fact that tuberculosis of the lower animals and that of man were identical.

M. Cornil in his address stated that the bacillus of tuberculosis could penetrate the mucous membranes independently of any lesion of continuity. The experiments MM. Chauveau and Villemin proved this. Animals in perfect health fed on tuberculous material or made to inhale vapor proceeding from tuberculous matter, were attacked by tuberculosis. Professor Cornil, in concert with M.

Dèbrechnowetri, had studied this question. These investigators caused guinea pigs to swallow one or two drops of Koch's bacillus cultivation fluid. There was absence of diarrhea. If the epithelium remained intact, nevertheless the follicles were swollen, and the mesenteric and lymphatic glands presented unmistakable tuberculous granulation. After the fourth day of the injection of the cultivation fluid, there was a considerable increase of cells in the lymphatic glands; on the sixth day actual tubercles were present.

M. Cornil had twice examined a uterus removed during surgical operation; both uteri were tuberculous, in one instance contagion by coitus was out of question; the disease was seated in the Fallopian tubes: in the other the cervix was attacked, also the surface of the uterine mucous membrane beneath the epithelium presented tuberculous granula tions. As the annexed organs, which were also removed, did not present any tuberculous lesions, M. Cornil considered that the last case was one of the transmission of tubercle by coitus. Iu order to ascertain the possibility of this mode contagion, M. Cornil introduced some baccilli into the uterine cavity of guinea-pigs. The first result was catarrh of the cervix uteri; afterwards a considerable increase of lymphatic cells containing bacilli. On the fourth day small tubercles were observed situated bencath the stratified epithelial cells; the tubercles then invaded the connective tissue between the uterus and the bladder.

M. Cornil concludes that sexual connection may furnish a means of contagion. M. Nocard in his address dwelt on the danger caused by the flesh and milk of tuberculous animals used as articles of food, and the necessity of boiling milk before drinking. When this was impossible, goats' milk should be used, as these animals were exempt from tuberculosis.

With regard to the flesh of tuberculous animals, M. Nocard said the late M. Bouley,a distinguished authority on such questions, urged that if an animal presented tuberculosis in any organ, the animal should be seized and considered unfit for food. The Brussels Hygienic Congress supported this measure, yet it had never been rigorously applied. Later on, the "Comité Consultatif des Epizoöties," sent te the Conseil d 'Etat, a propositions that all meat taken from tuberculous animals should be considered unfit for food unless the tuberculous lesion were clearly localized. Moreover, the skins of such animals should only be utilized if they were thoroughly disinfected.

M. Nocard had made a series of researches, which led him to believe that meat from tuberculous animals was rarely injurious, and only to a slight degree.—*British Medical Journal.*

A Case of Tetanus.—At a recent meeting of the Imperial Royal Society of Physicians ot Vienna, Dr. v. Eiselsberg gave an account of a case of tetanus, which had been in the clinic of Professor Billroth. A woman,aged 40, drove a splinter of wood into the palm of her hand while scrubbing the floor. A fragment of the splinter was extracted by her husband. During the course of the next week, an abscess formed in the hand; this was opened by the attendins physician. On the twelfth day after the injury, the woman was admitted into Professor Billroth's clinic with the typical symptoms of severe tetanus, which lasted four weeks. She afterward recovered to a great extent, and was discharged at her own request. At that time she still presented slight contractions of the affected limb. Two months later, a suppurating fistula was formed, and a small splinter of wood came away in the discharge. The wound then completely healed, and the patient made made a perfect recovery. Dr. v. Eiselsberg used the extracted piece of wood for preparing cultures. Two rabbits were inoculated with the culture thus obtained, one of which succumbed to tetanus on the sixth day after inoculation, while the second one, which was inoculated at a later date, showed marked symptoms of tetanus, such as increased irritability, trismus, pleurothotonus, etc. Dr. v. Eiselsberg showed this rabbit to the Society, and foretold that it would also

die in a few days. The lecturer formally called attention to the fact that the pathogenic bacillus of this disease was also to be found in the garden mould and the gravel. He will next report on a number of other experiments on the etiology of tetanus. Vienna correspondence of *Brit. Med. Jour.*

Dr. J. Clark Stewart reports a case in the *Med. News*, in which he injected a dram and a half of a four per cent solution of hydrochlorate of cocaine into a man's urethra, and introduced a urethrotome dividing several strictures and dilating the canal quite thoroughly. He then passed a steel sound, and on removing it the patient sat up. He almost immediately said, "I feel sick," stiffened out, became unconscious with widely dilated pupils and a rapid feeble pulse. This condition lasted perhaps a minute, when he recovered his senses, but was dazed. After a moment or two he said, "I feel badly again," and he sank back on the table, and was seized with general clonic convulsions, which began in his face and extended over his entire body. There was throughout partial suspension of respiration and increasing rapidity and weakness of the heart's action. The last attack lasted between two and three minutes, during which time he became deeply cyanosed. Consciousness gradually returned, and he left the office in an hour.

Dr. Stewart saw the patient frequently afterward, using the instrument in the same way, but without the use of cocaine, and no untoward symptoms were produced. There was an obscure history of *petit mal.*

Dr. Stewart asks, may not cocaine have a specific action in precipitating epileptic attacks in predisposed subjects?

Chloride of Methyl as a Local Anesthetic.—The cold developed by the passage of chloride of methyl from a liquid to a gaseous state was utilized some time since by a French surgeon, M. Debove, for the purpose of inducing local anesthesia. Certain modifications have been introduced by M. Bailly, of Chambly, by which the method has been rendered much more practical and safer. Instead of freezing the part by allowing a jet of the gas from a siphon receptacle to play upon it, he saturates plugs of cotton-wool with the liquid, and places them on the spot to be operated on, or on the seat of pain. It has been found exceedingly useful in the treatment of neuralgia, sciatica, etc. To facilitate the transport of the liquid he has designed a double glass tube, the inner one containing the methyl, and the space between the two tubes being rendered a vacuum. By means of a capillary tube the anesthesia can be directed to particular spots too small for the application of a tampon. When the latter is employed, in five or six seconds the skin becomes blanched, indurated, parchment-like and depressed. The anesthesia thus obtained is amply sufficient to allow of incisions, scarifications, cauterizations, etc., without sensation.—*Brit. Med. Jour.*

Precocious Diagnosis of Phthisis.—Dr. R. Serrand says that in patients destined to phthisis pulmonalis there are always some well marked pharyngo-laryngeal signs which precede the pulmonary symptoms. These signs are three in uumber:

1. Pharyngeal anemia. The pharynx is a pale, colorless white, instead of its normal color.

2. Defective approximation of the inferior vocal cords, from atony of the constrictors.

3. Localized congestion of arytenoidal mucous membrane, shown by a swelling and a cherry red coloring of that region.

These three signs can exist together or singly. The existence of one is strong presumption in favor of approaching tuberculosis. Every time the physician finds them together the prognosis is certain. The pharyngeal anemia, failure of the contractibility of the inferior vocal cords, the congestion of the arytenoidal region, signs which have nothing in common with laryngeal phthisis, are the avant coureurs of pulmonary consumption. The physician who can read the larynx of his patient may save him from many evils,

for he can use prophylactic measures, and arrest phthisis in its incipiency.—*Revue de Thér.*

HYPODERMIC INJECTIONS OF SALT WATER.—The *Med. Times* has the following translation from the *Bul. Gen. de Ther.*: The statements of Cantani concerning the treatment of Asiatic cholera by subcutaneous injections of salt water have suggested that the same treatment might be used in other grave conditions that cause failure of the heart. A solution of 6 in 100, of which 5 to 20 grammes may be used, is employed. No inflammation or abscess has been known to follow this, and after 20 to 30 grammes have been injected a marked improvement in the pulse is noticed, which continues for some hours. This treatment is indicated in the following cases: 1. Severe collapse. 2. Weakness of the heart. 3. Gastritis. 4. Acute enteritis. 5. Pulmonary, stomachic or intestinal hemorrhages. 6 Cachectic states.

There is a journal in Paris devoted exclusively to hypodermic medication.

DR. BENLEY exhibited before the Royal Academy of Medicine in Ireland, a remarkable specimen of cirrhosis of the liver accompanied by thrombosis of the portal vein. The left lobe was in a state of extreme cirrhosis, being as tough as leather, while the right lobe was peculiarly thickened in its vertical diameter, of a yellow color, and quite soft, there was a distinct division line between the two lobes.

DR. BRUNS of New Orleans, says that myopia in the negro race is an extremely rare affection. Mr. Stell reports a case, in the *N. O. Med. and Surg. Jour.* of high degree of myopia and Dr. Bruns thinks that a similar case can not be found in the records of many hundreds of cases at Charity Hospital.

BOOK REVIEWS.

THE BEST SURGICAL DRESSING.—HOW TO PREPARE IT AND HOW TO USE IT, by Otis K. Newell, M.D., Assistant Demonstrator of Anat. etc., at Harvard Medical School, Boston, Cupples & Hurd.

This little book is a translation of the work of a German surgeon, Dr. Johann Mikulicz, on "The Use of Iodoform in Surgery" which first appeared in 1882.

Part I. is devoted to the history of Iodoform and its general application in surgery. It was through the efforts of von Mosetig Moorhof that iodoform was brought into notice as a surgical dressing and antiseptic, and although at first only used in a limited degree, soon came into general favor, especially when surgeons like Billroth, Gussenbauer,etc., extolled its value, not alone in tubercular affections, but in wounds of all kinds, and today we have not another article whose range of application is as wide in surgery as that of iodoform. The various methods of dressings and manner in which iodoform is used is fully discussed.

Part II. relates to the general class of wounds to which iodoform is applicable.

Embodied in this work is also "Beach's Principles of Bullet Wound Treatment" which embodies, the principles, generally accepted by the majority of progressive surgeons of the present time in relation to the principle of the treatment of gunshot wounds. The author has done well to place before the English reading profession the little work of Mikulicz on "Iodoform" and as it embodies the best and various methods of how to use it, based on practical experience by men of reputation, it can be perused with profit by the profession generally. A. H. M.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 10. ST. LOUIS, SEPTEMBER 8, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

SUPPURATIVE NEPHRITIS.

BY ARCH. DIXON, M. D.

Suppurative diseases of the kidney are various and distinct, and may be described, as by Greig Smith, as (1) simple circumscribed renal abscess; (2) general nephritis, pyelitis and pyelo-nephritis, surgical kidney; (3) scrofulous kidney—or more properly speaking, tubercular kidney.

Renal abscess has its typical origin from injury, as from a blow, from calculus or other foreign body or from exposure to cold; it may be secondary to perinephritic abscess.

Renal abscess is usually limited to one kidney. It may find its way into the pelvis and thence into the bladder through the ureter; or it may burst through the capsule into the surrounding cellular tissue, causing perinephritic abscess, or both may occur. It is by no means rare to find more than one abscess in renal tissue. In many cases the whole organ is transformed into an abscess, limited by pelvis and capsule and partly subdivided by septa.

In acute cases, the symptoms are frequently ushered in with rigors, often repeated, and great elevation of temperature. In chronic cases there may be little or no fever at any stage of the disease. Pain in the region of the kidney is usually complained of. Pus may be found in the urine; if it is considerable in amount and accompanied by decrease in the size of a lumbar tumor, the existence of renal abscess is almost certain.

A sense of increased resistance in the loin to the examining fingers, edema and redness of the skin, and complaints of local pain on pressure suggest renal abscess. The disease is always attended by great prostration, rapid emaciation and complete loss of appetite.

Suppurative nephritis is usually described as secondary to some disease of the lower urinary tract. It may be confined to the pelvis, when it is known as pyelitis; or to the kidney when it is described as nephritis; or it may involve the whole renal organ when it it known as pyelo-nephritis. In its typical development it is best known as "surgical kidney"—that is to say, it has its origin in any disease of the penis or bladder, for which surgical treatment has been or may be instituted. The disease, perhaps, is more frequently due to a want of surgical treatment than to excessive or erroneous application of it.

From the nature of the disease, both kidneys are usually affected; and this fact in itself is sufficient to forbid a local operation of any magnitude. Suppurative nephritis is, in the great majority of cases, a rapidly fatal complaint, and surgical treatment offers little or no hope of cure.

The same may be said of scrofulous (tubercular) kidney or scrofulous pyelo-nephritis as it is smetimes called, which is an inflammation of the kidney attended with a formation of the characteristic cheesy material. In view of the undoubted frequency of this disease in the other kidney and in other organs operative procedures should be viewed with caution.

Peri-nephritic abscess is in most cases secondary to abscess of the kidney itself. It occurs also as a primary idiopathic disease, quite independently of the kidney, and also as a consequence of urinary extravasation, or renal fistula. As a primary disease it is usually the effect of some injury. Occasionally

it occurs as a sort of metastasis from operation upon, or inflammation in distant parts of the urinary or generative organs. The symptoms of peri-nephritic abscess are, in the first place, those of deep seated suppurative inflammation with its ordinary local and general concomitants, situated in the tissues surrounding the kidney. Further, special signs have been observed such as lameness on the affected side with flexion of, and inability to extend the thigh, due to edema of the foot and ankle.

Roberts after an elaborate study of this condition, gives the following directions for the localizing of peri-nephritic abscess: "In all anterior regions we may expect pain, tenderness, swelling, edema, or pointing in front or at the side of the abdomen. In all posterior regions we look for pain, tenderness, swelling, edema, or pointing in the loin. In the upper tracts, peri-nephritic abscess will probably cause pleuritic friction, pleural effusion, empyema, expectoration of pus and dyspnea; on the right side we may expect to find edema of both legs, jaundice, fatty stools, persistent vomiting, rapid emaciation and ascites. In the middle tracts, there may be albuminuria and casts, supra-pubic, scrotal or vulvar pain, or anesthesia, suppression of urine, uremia, pyuria, edema of the scrotum." In the lower tract, he tells us to expect with peri-nephric abscess flexion of the hip, pain or anesthesia in the front, the outside or the inside of the thigh, pain in the knee, scrotal or vulvar pain or anesthesia, without albuminuria, unilateral edema of legs, abscess pointing near Poupart's ligament—with constipation—on the left side and involvement of the receptaculum chyli on the right side.

No such directions are laid down for our guidace in renal abscess, the symptoms of which are often obscure and misleading, as the history of the following case will show:

Robt. M., æt. 18, fisherman, came under my observation August 16, 1884. Two weeks prior to my first visit had been much exposed to sun and was wet almost continuously during the day, being engaged in hauling a seine. That night he had a chill, followed by fever daily, which did not yield to quinine, etc.,—with evening exacerbations. There had been some diarrhea followed by constipation. Examination revealed slight emaciation, tongue dry, with brownish coating, slight sordes on teeth and foul breath, abdomen slightly tympanitic, tender; tenderness accentuated over the cecal region; temperature, morning, 101°, evening 103°. Pulse, 110; anorexia and a disposition to sleep, with night sweats. There was no evidence of any abdominal tumor, nor had the patient complained of special pain since the day following the attack. On that day there was soreness of all the musculature with sharp pain in the back. My diagnosis of this case was typhoid fever, and as such I treated it for ten days, the temperature, morning and evening, varying but little from that recorded on the day of my first visit. The pulse, however, had varied much, running from 82 to 130. Peptonized milk, broth and stimulants were given freely. Quinine, 2 grains three times a day. Turpentine emulsion and sponge bath about constituted the therapy in the case.

Aug. 26.—M. informed me that, after moving his bowels thoroughly by enema, he had felt something growing in his right side. Palpation elicited the fact that there was a tumor about the size of an orange, deep down in the renal region—fluctuation could not be made out. The examination was followed by a rigor so severe in character that a hypodermic of morphia and atropia was administered. There had been slight rigors for some days previous to this, but no especial importance was attached to them. Upon further inquiry the fact that the urine had been cloudy and thick for several days was elicited. Renal abscess was at once suspected and specimens of urine taken for examination. Pus corpuscles and casts were found. The following day an exploring needle was passed into the tumor and some pus was withdrawn; there was no longer any doubt in the case, and abscess of the right kidney was diagnosticated. An operation was proposed and accepted, and the afternoon of the same day nephrotomy was done, giving exit to about six ounces of

pus and urine. Explorations were made, digitally and with a fine exploring needle for calculus, none being found. The incision in this case was the oblique lumbar, as recommended by Morris, beginning close to the edge of the erector spinaæ, half an inch or more from the lower border of the twelfth rib, and carried obliquely downwards and forwards towards the crest of the ileum for three or four inches: the quadratus lumborum was divided transversely in order to obtain more room.

The deep lumbar aponeurosis was then divided and the circumrenal fat exposed. All bleeding points were stopped either by forceps, pressure or by ligature. The fatty capsule was then teased open with forceps and the surface of the kidney exposed. A small tenotome was passed into the kidney followed by a dilating forceps and the opening enlarged sufficiently to admit the finger: about six ounces of pus flowed out. A drainage tube was placed in the wound, after thorough disinfection which was closed in the ordinary way by deep and superficial sutures. Marked improvement was manifest the following day which continued uninterruptedly. The drainagetube was removed on the eighth day,a small fistulous opening remaining which in two months had entirely disappeared.

Smith thus sums up the indications for the operation of nephrotomy. "Nephrotomy is indicated in all cases of cystic enlargement when puncture has failed. More precisely it is called for in cases of simple cyst where tapping has been performed five or six times without effecting a cure. In hydatid disease, if one tapping does not kill the parasite or check the growth of the tumor, nephrotomy may be properly performed. In hydronephrosis, if the cyst rapidly refills after two or three tappings, or if rupture seems imminent, nephrotomy is indicated. In every case suppuration in a cyst is an indication for incision and drainage. In all cases of suppuration in and around the kidney incision with evacuation of pus and drainage of the abscess sac is indicated. Contra-indications in such cases are—firstly, such a condition of exhaustion as would negative any serious surgical exploit; and secondly a diseased condition of the opposite kidney. Whenever operation for abscess is feasible, nephrotomy ought to be the first operation. The prime object is evacuation of pus: secondary objects are diagnosis of the actual state of affairs and determination of the chances which nephrotomy provides towards cure, and preparation of the kidney and the patient for the major operation of nephrotomy when incision cannot be expected to be curative. Nephrectomy performed in the first place as an operation for suppurative lesions of the kidney, is not so successful as nephrectomy performed as an operation following on nephrotomy and drainage. The patient gains strength after evacuation of an abscess, and the kidney decreases in size, while the vascularity of the organ and the density of the adhesions become less marked after drainage.

Rarely is operation admissible in suppurative nephritis or pyelo nephritis—in uro-septic or surgical kidney. Scrofulous kidney as often calls for excision as for incision—at least when the abscesses are small and numerous."

Before performing nephrotomy it is advisable though not necessary to take measures for ascertaining the condition of the other kidney. But the justifiability of the operation will be the urgency of the disease. Whether the opposite kidney is sound or not, renal or perirenal abscess which is endangering the patient's life must be evacuated if the general condition will warrant operation.

As will be observed in another column the American Pediatric Association meets in Washington, D. C., at the Arlington hotel Sept. 18. It is hoped that all interested in t e department will attend.

In this connection it is well to state that the best route to Washington is over the always picturesque, pleasant and rapid route the O. & M. and the B. & O.

No road makes such direct connections and presents such a panorama of beauty to its patrons as the aforesaid O. & M. and B. & O.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, SEPTEMBER 8, 1888.

A NAIL IN THE STOMACH.

Fitz James Maony (*Brit. Med. Jour.*, July 14) reports the following case:

"A carpenter was standing on a piece of scaffolding, nailing up boards to the under part of a roof, and with the idea of having nails near at hand when required, kept a few between his teeth. The scaffolding gave way, and the man in saving himself from falling swallowed one of the nails. He immediately felt severe pain down the course of the esophagus, and afterwards there was constant pain and tenderness at the pyloric end of the stomach. I made him limit his food to bread and milk, and gave him large quantities of hydrochloric acid, with the object of acting on the nail and forming a soluable salt of iron. I kept him more or less under the influence of chlorodyne, relieving his bowels occasionally by an injection. The motions after the first two days were blackened, and the stomachic pain and tenderness gradually subsided. He is now apparently quite well. I should mention that the nail which he swallowed was two inches in length.

I do not know if any case of the kind has been recorded. The administration of a mineral acid seems to me to be the most rational treatment, and in this case it clearly had the effect of dissolving the iron."

The report does not state what time elapsed between swallowing the nail and the disappearance of the symptoms of colic. A solution of hydrochloric acid, diluted so as not to injure the teeth and mucous surfaces, would act upon iron so slowly that to dissolve a nail would require great time; and when we remember that this solution must undergo much greater dilution in mixing with the contents of the stomach, the action of the acid upon the nail would be almost imperceptible, if at all. Since reading the above report I have placed a nail in a solution of hydrochloric acid, containing one dram of the dilute acid to an ounce of water. This solution is as strong as can be taken internally with safety to the mucous surfaces. While there is a perceptible action upon the iron, the effect is so slow that the time required for dissolving the nail would be very great and indefinite, It would be indefinite because the chemical demand of the hydrochloric acid upon the iron is so soon satisfied by combination and the liberation of hydrogen, that a constant re-supplying of the acid solution is necessary. The amount required for dissolving a nail, two inches in length, would be immense. I think, in this case a more probable theory would be, that the nail passed through the intestinal tract, as nails and other similar objects have been known to do.

H. C. FAIRBROTHER.

HYPODERMIC USE OF COCAINE.

Dr. F. Johnston, of Georgia, reports a case in the *Med. News* in which he injected one-half a grain of cocaine into the soft parts of a great toe of a patient for the purpose of removing an in-growing toe-nail. A little more than half an hour after the use of the cocaine the patient became collapsed, pulseless, lips cyanosed and heart beating feebly and irregularly. Dr. Johnston injected nearly a dram of sulphuric ether hypodermically, and administered two drops of nitrite of amyl internally which gave immediate relief. The following day he found the inner half of the toe in a state of dry gangrene, which he treated as such, and the patient recovered in a few weeks.

From time to time we have called the attention of our readers to accidents, some of

them fatal, from the free use of this drug. We can account for this only by attributing it to marked idiosyncrasy possessed by some patients. Unfortunately, we have but one way to test whether or not the drug will be a poison to our patient, and that is to try it. It is certainly less dangerous when used in small quantities than when given in large doses.

A Russian surgeon (*Pacif. Record*) recommends that in dislocations of bones a hypodermic injection of fifteen minims of a five-per cent solution of cocaine be made at four different points in the neighborhood of the dislocated joint. This would make one dram of the solution which contains three grains of the salt. This is said to render the reduction easy and painless.

Dr. Thomas D. Dunn, in an article on the Hypodermic Use of Cocaine in Migraine and Bronchial Asthma (*Ther. Gaz.*), says that while suffering from an attack of migraine he injected hypodermically one and one-fourth grains, and in about two minutes he experienced complete relief. The following were the physiological effects which he experienced: "Restlessnes and excitability were marked, and all the reflexes were exaggerated, especially the knee-jerk. It was impossible, even by a strong effort of the will, to lie or sit quietly. My mind was clear and active. Ideas rapidly presented themselves, and I fancied there was unusual versatility of expression. Pulse was not at first affected, but soon became quickened, and there was a slight tendency to palpitation. Respiration was labored and sighing. I could hold my breath for two minutes by the watch, and when I recommenced breathing it was not hurried or altered in any way."

These symptoms passed off in an hour or two. A medical friend administers the drug for him when the attacks recur and with uniform good results. The attacks now occur only once in two or three months.

Dr. Dunn reports several cases in which he uses with great success from one-third to one-half a grain, together with an eighth or a fourth of a grain of morphine.

In a troublesome case of bronchial asthma, he secured almost instantaneous relief, but unless absolute rest was enjoined the spasm would return in an hour or two, and sometimes even with this precaution. The addition of morphine largely corrects the disagreeble symptoms produced by the cocaine. He has given the two combined not less than sixty times in these cases of asthma, and has never found it necessary to give more than one-twelfth to one-eighth of a grain of morphia, and from one-fourth to one-half a grain of cocaine. In nearly every instance one injection was sufficient to break up an attack.

Cocaine, injected hypodermically, is said to have a marked curative affect upon cases of tetanus. It is indeed a valuable drug, but it should be used cautiously.

The Use of the Phonograph in Recording Cases.

Most physicians have felt the difficulty of accurately describing or remembering abnormal sounds met with in physical examination. We can classify heart murmurs, for instance, but it is almost impossible to so record the intensity and peculiarity of each as to be intelligible to others.

So it is with lung sounds and the different kinds and degrees of hoarseness. It is hardly exact to say that a patient is slightly hoarse or very hoaase, and affords us little satisfaction in estimating the progress of a case by such symptoms.

It is here that the phonograph may be of great service, and the time is not far distant when much of the information which we now gain through the stethoscope may be permanently recorded, and the fac simile of any abnormal sound reproduced at will.

During a somewhat prolonged vacation this summer, the writer has had the opportunity of experimenting with the phonograph. While the instrument is not yet as complete as it probably will be, even now it can be used with great satisfaction.

Not only are different voice sounds preserved distinctly, but I find by attaching the

ordinary stethoscope that some of the cardiac sounds could be easily recognized after they had been recorded by the instrument. The most perfect result was from a case of mitral insufficiency. I was not able clearly to record normal sounds on account of their comparative softness, but I believe with a perfect machine even this may be accomplished.

The completed phonograph will probably not be a very expensive machine. It is certainly not complex. The wax cylinders are small, will cost about five cents each, and each will hold the sound imprint of nearly two thousand words.

It will be a great addition to our methods of case recording, when we can have not only the written history and description of the case, but where there are abnormal respiratory and cardiac murmurs, if these too can be written down.

While such experiments with the phonograph are so far incomplete, they are very interesting and bid fair to be of value.

WM. PORTER.

DR. MACKENZIE AND HIS CRITICS.

If more attention had been paid to the physician's reports, published during the illness of the late Emperor, there would be less unfounded comment now. We can appreciate the feelings of the German physicians who found their chief ruler in the hands of a foreigner, and especially when the personal relations between the Emperor and his medical adviser were so intimate.

We are sorry to see, however, that some of our American confreres, forgetting the record of the case, and without waiting for Dr. Mackenzie's reply to his Berlin accusers, have seen fit to prejudge him.

It should be remembered that Dr. Mackenzie was called in counsel by the medical attendants of the then Crown Prince, and for this we have the authority of the Prince who after he had become Emperor, made this statement in publicly decorating his physician.

It is said that if Dr. Mackenzie had only asserted that the condition was cancerous, he would have avoided any suspicion of pandering to his English patrons. How unjust this is will be seen when we recall the facts that last autumn at San Remo, Dr. Mackenzie published in the *Brit. Med. Jour.*, by request of the Emperor, a statement of the case, in which he plainly said that "the growth in the larynx presents every appearance of cancer." This report was re-published in most of the journals of this country. So long as Virchow could not state that the portions of the tumor he from time to time received from Dr. Mackenzie were cancerous, so long the latter was not justified in definitely stating that it was cancerous.

It is not forgotten that at first the German pathologist said it was a simple wart. Who then would have performed excision? Even had the operation been performed, do not statistics show that the Crown Prince could scarcely have lived nearly so long?

We would remind our friends that Dr. Mackenzie had the full confidence of his royal patient, that his reply to the charges formulated against him has not been heard, that what he has published is straightforward and clear, while most of the criticisms are founded on newspaper reports. Moreover, not only has his own Sovereign honored him, but his brother specialists in London have just shown their confidence in him and appreciation of his work by electing him president of the British Laryngological Society. This in itself is a proof that there was not any thing crooked in the conduct of the great London physician, a proof not needed by those who know him well.

W. P.

CREMATION.

The daily press says cremation is still illegal in France, so that Frenchmen have to go to Italy for this purpose. A Parisian who recently died was, by the provisions of his will, taken to Milan for cremation. The Italian customs authorities levied seventy dollars import duty on the body, and the

same amount of export duty on the ashes when they were taken back to Paris. When called to account as to the legality of this double performance they replied that all laws are the same to a dead man.

Cremation is gradually gaining ground in this country. The prejudice against it is slowly but surely giving way as the advantages of this plan of disposing of the dead are better understood.

There is a part of Greenwood cemetery, the "fashionable burying-ground" of New York city, the "lots" of which are seven feet long and three feet wide. It is quite frequent for four persons to be placed in one of these "lots," not side by side, but one above the other. This proves somewhat expensive, as the grief-stricken family rarely takes the precaution to have the first casket placed sufficiently far below the surface to admit three others above it, and still have the uppermost six feet below the surface. Hence, as a rule, at each burial the caskets that have been previously buried have to be disinterred and placed deeper to make room on top for another.

When cremation becomes fashionable it will be a great blessing to the poor, especially those living in large cities. Paupers, disposed of by the city undertaker, are placed underground for a few dollars. But a "decent funeral" in New York city costs from one hundred dollars up. Cremation will do away with much of the false pride that is born of ignorance, that causes so many persons to spend all their worldly possessions in costly caskets and extensive funeral trains for their departed friends, and afterwards live a miserable existence, struggling against want.

A Scottish Burial Reform and Cremation Society was formed on Aug. 10, 1888, at Glasgow, of which the *Brit. Med. Jour.* says: The chairman said the object of the meeting was to advocate reform in the methods of disposing of the dead, and especially to bring before the public the advantages of cremation. Whatever differences of opinion there might be as to the adoption of cremation or any other substitute for the present arrangement, there could be no doubt whatever, that the present burial system, in the interest alike of the living, and, he might aimost say, of the dead, stood most urgently in need of reform. He was certain the public had not the smallest idea of the horrors of our present burial system, or of the prevalence of what was called "pit-burial," so prejudicial to the health and so repugnant to the feelings of every intelligent and right-minded man. As to getting rid of this injurious and disgraceful state of things, cremation was the only sasisfactory method yet proposed. Dr. Cameron then spoke of its success at Gotha, where 600 cremations had already taken place, and at Woking, where 20 cremations took place last year, and 40 had taken place in the first half of the present year. He then referred to the objections commonly raised to the method; the religious was answered by Lord Shaftesbury's query about the martyrs; the sentimental by the fact that sentiment was entirely against the present system; and as regards the legal objection, he said there was not under the present laws the smallest guarantee against foul play, and there would be introduced along with cremation the strictest posssible precautions against foul play.

Dr. Russell then moved: "That this meeting disapproves of the present methods of burial in Scotland, both as regards the expense involved and as regards their dangerous effects on the public health."

This was seconded by Dr. Littlejohn, Edinburgh.

Sheriff Spens moved: "That this meeting desires to substitute less expensive and more sanitary methods of disposal of the dead, and approves in particular of the method known as cremation."

This was supported by Sir Spencer Wells, Dr. Farquharson, M. P., Mr. Ernest Hart and Dr. Carpenter.

Dr. Eben Duncan moved: "That this meeting resolves that a Society be formed to carry out the objects aimed at in the foregoing resolutions, under the style and title of the Scottish Burial Reform and Cremation Society.

National Quarantine.

Our readers will recall that an effort has been made for some time past to establish a National Quarantine that shall have entire control of all points of entrance to the United States. A number of states have established and now maintain quarantine stations for their own protection. The section of the revised statutes of the United States will give an idea as to the relation existing between the general government and the state governments.

The quarantines and other restraints established by the health-laws of any state, respecting any vessels arriving in, or bound to any port or district thereof, shall be duly observed by the officers of the customs revenue of the United States, by the masters and crews of the several revenue-cutters, and by the military officers commanding in any fort or station upon the sea-coast; and all such officers of the United States shall faithfully aid in the execution of such quarantines and health-laws, according to their respective powers and within their respective precincts, and as they shall be directed, from time to time, by the Secretary of the Treasury. But nothing in this Title shall enable any State to collect a duty of tonnage or impost without the consent of Congress.

Section 5 of an act approved April 29,1878, reads:

That whenever, at any port of the United States or municipal quarantine system may now hereafter exist, the officers or agents of such system shall, upon the application of the state or municipal authorities be authorized and empowered to act as officers or agents of the National Quarantine system, and shall be clothed with all the powers of United States officers for quarantine purposes, but shall receive no pay or emolument from the United States. At all other ports where,in the opinion of the Secretary of the Treasury, it shall be deemed necessary to establish quarantine, the medical officers or other agents of the Marine Hospital Service shall perform such duties in the enforcement of the quarantine rules and regulations as may be assigned them by the Surgeon-General of that Service under this act:

Provided, That there shall be no interference in any manner with any quarantine laws or regulations as they now exist or may hereafter be adopted under state laws.

It will be seen from this, that while "Uncle Sam" carefully guards the rights of individual states, he reserves the privilege of seeing that the work of the quarantines is well done.

An act approved Aug. 1, 1888, provided for the establishment of national quarantine stations at the following points:

One at the mouth or the Delaware Bay; one near Cape Charles, at the entrance of the Chesapeake Bay; one on the Georgia coast; one at or near Key West; one in San Diego Harbor; one in San Francisco Harbor, and one at or near Port Townsend,at the entrance to Puget Sound; and the said quarantine stations when so established shall be conducted by the Marine Hospital Service under regulations framed in accordance with the act of April twenty-ninth, eighteen hundred and seventy-eight.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

The eminent author and surgeon Prof. von Esmarch, of Kiel, Germany, is on a visit to America. He has been invited to become the guest of the Mississippi Valley Medical Association and deliver an address on surgery at the coming meeting. The profession of the west and south will be glad of an opportunity to welcome him.

* * *

Although the programme of papers for the M. V. M. A. meeting is full and has been turned over to the committee of publication, every facility will be furnished for the presentation of volunteer papers, to take the place of essayists who may unavoidably be absent.

* * *

A recent issue of the Review contained a

quotation from the address of President E. A. Wood, of the Pennsylvania State Medical Society, upon the subject of "Heredity and Education." The article was a timely one and should be read by every thinking man—did space permit, it should be given entire. The time has come when medical men should give heed to the crying need of the hour the need for the education of the masses, the patrician and the plebean alike to the appreciation of the serious and solemn side of the procreative problem.

Apropos to the subject there appears in the last number of the *Jour. Am. Med. Assn.* an excellent editorial upon the "Ethics of Marriage" wherein occurs the following:

"One thing that seems peculiar to America, and that must inevitably have a tendency to lower our ideas of marriage into notions, is the peculiar custom of boardiug of married people, instead of having a home. A boarding house or a hotel can never be a home, since in these places there can never be that amount of the high work of woman that is essential to the making of a home, nor can children be surrounded by all those influences that go to make the complete home and family. A child cannot be reared in a boarding house to be that complete human animal that makes the complete citizen. In such a place there cannot be that preformation of the child that is so much better than reformation."

The writer is right. A child had far better be permitted to take to the woods and grow up with the trees than to be raised in the close unnatural hot-house atmosphere of the modern boarding house, or within the confines of the more recent fashionable fad—the "French flat." Domestic life in such pestilential places is indeed stale, *flat* and unprofitable.

The beaming benedict as a rule when he leaps out into the brilliant billowy and uncertain sea of matrimony is fortunately so thoroughly and completely surfeited with boarding house life that he insists upon having a home if it be but one room—and indeed his view is correct. It were better that he be a dog and bay the moon than a husband with his family in the poisoned and gossipy air of a hotel or boarding house.

* * *

Dr. W. W. Dawson, President of the American Medical Association will be present at the meeting of the Mississippi Valley Medical Association, in St. Louis, September 25, 26 and 27.

* * *

Who has not been worried and disturbed by the hanging-on case of gonorrhea—the case that persists in not getting well? The contributor who can present a plan of treatment satisfactory to doctor and patient alike will be a benefactor indeed.

The following is the course pursued by Dr. John Young Brown, of Henderson, Kentucky, one of the brightest and ablest men of the galaxy of able Kentuckians—which appears in the last number of the journal of the A.M. A., viz.:

"During the past ten months I have had under treatment seventy cases of gonorrhea, in all of which I have followed antiseptic teachings, and with results both gratifying to myself and to my patients. Before going into detail I will show you the Kiefer nozzle for continuous irrigation. This is attached to an ordinary fountain syringe, and with an oil lamp and water can constitute all that is necessary for the treatment of ordinary cases. The plan of retro-injection or continuous irrigation is based on the specific nature of gonorrhea, and consists in the daily use of large quantities of medicated and tempered water. In the acute cases the plan of treatment I use is as follows: Patient is given a mild purge, and the use of intoxicating liquors is prohibited. I then commence the use of the continuous irrigation, injecting twice a day a quart or more of hot bi-chloride solution 1 in 15,000, or even milder, if urethra is hypersensitive. This is kept up for four or five days, at the end of which time the discharge is, as a rule, considerably checked. As discharge grows scant and acute stage disappears, I change the injection, using the same amount of a saturated solution of boric acid. In the majority of acute cases this plan will

prove successful. In chronic cases the plan of treatment is slightly different. In these cases I examine first for stricture, and, if examination proves negative, I either dilate the urethral canal with a large sound, or set up an acute inflammation by the use of a strong solution of zinc chloride (gr. ij to ℥j), thereby placing the urethral canal in condition for the use of retro-injection. I then begin as before, and use twice daily the bichloride injection, followed by the boracic acid irrigation. Following this plan of treatment, I have succeeded in curing the major portion of my cases, and I have yet to see a bad result following its use.

In chronic inflammation of the deep urethra behind the "cut-off" muscle, where retro-injection will not reach, the deep injection of nitrate of silver, accomplished by means of Keyes' modification of Ultzmann's instrument, which I now show you, has proved very successful in my hands. This instrument can also be used for cocaine injection, as any part of the urethra can be reached with it. Summing up the advantages and disadvantages of the foregoing method, I am able to give but one disadvantage, and that is the time and trouble required for its use, and truly the good resulting from it is sufficient to compensate for this."

* * *

From all points comes evidence of satisfaction upon the part of those interested, with the change of date of the Mississippi Valley Medical Association meeting from Sept. 11, 12 and 13, to Sept. 25, 26, 27, two weeks later than first announced.

The advantages are:

1. Cheaper railroad rates will prevail.

2. Many of the good men who are desirous of attending will have returned from their summer vacation.

3. The summer epidemics which have prevailed in certain localities will have subsided, and the busy practitioner will thus be enabled to attend.

* * *

The programme has been more than full or two weeks past.

Full provision will be made for free discussion, as the one great advantage of this medical meeting is the exchanging of views, the relation of observations and experiences.

* * *

It is hoped that visiting delegates will come the first day and remain through the entire three days' session.

Each day will be completely filled with good meaty papers.

The prevailing thought governing the association and this meeting, so far as the committee of arrangements is concerned, has been and is, and the same idea must abide with all visitors—work while it is day, for the night is coming when no man shall work, but all shall let joy be unconfined, and ring the merry, merry bells in ratification of the marriage of science and sociability.

Let us hope that the entire profession of the surrounding states will turn out as one man.

* * *

Travel the wide world over, and you'll find the most progressive, the most studious and thoughtful, the most humane and best beloved, the most prominent, painstaking and polished, the most solidly scientific, and the most genial, gentle and jolly, the happiest and best class of doctors in every community to be those who attend medical conventions, giving and taking information and suggestions as a cat laps milk.

The medical man who stays too much with himself is not wise, happy, or in a condition to serve well his fellow-man.

Show me the doctor who loves not his fellows, and I will point out to you one who more than likely loves not science, who loves not humanity, whose usefulness is circumscribed, and who practices physic as a trade for revenue only.

The growing need of the medical profession demands that the lines be tightly drawn, and that all such be placed outside the pale of respectability.

CORRESPONDENCE.

PARIS LETTER.

PARIS, Aug. 15, 1888.

MM. Grehant and Quinquand have made some interesting researches concerning the respiration of the yeast of corn seeds at different degrees of temperature. In his experiments with certain alcoholic ferments, M. Paumes found that the quantity of oxygen absorbed and of carbonic acid produced, varied in the proportion CO_2 to O; this fact was due to the variation in the temperatnre of the water in which the ferments were plunged, and to the insufficient manner in which the liquids were kept in motion.

MM. Bonnier and Mangin, from their researches on the gaseous exchange which takes place between a plant without chlorophyl and the external medium, arrived at the following conclusions:

1. Normal respiration is the absorption of oxygen, and the production of carbonic acid.
2. Nitrogen is neither absorbed nor produced.
3. Hydrogen is not produced.
4. The proportion of carbonic acid exhaled to the oxygen absorbed is less than unity. In the respiration of mushrooms, therefore, oxidation takes place.
5. The relation CO_2 to O is invariable with pressure.
6. The proportion of carbonic acid exhaled, and of oxygen absorbed, increase regularl y with the temperature.
7. The proportion of carbonic acid exhaled, as compared with that of the oxygen absorbed, does not sensibly vary with the temperatnre.

The following experiment was made by MM. Grehant and Quinquand. A small vial, containing 5 grammes of yeast, 40 cc. of distilled water, and 40 cc. of pure air, and stopped with an india rubber cork, was placed in a rectangular zinc box, covered with a flat cover, surrounded by an india rubber frame at the sides, and fixed with brass fixings and screws; a current of water, proceeding from a cylindrical tin reservoir, capable of containing 50 litres, and heated by gas, was made to circulate round the vial through two lateral jointed pipes. The water ran off through a siphon, with a tap, into the box and fell into a large glass receptacle on the ground, the box fixed to an oscillating plank, was set into motion by an hydraulic motor.

To avoid the loss of water, and to prevent it from invading the laboratory, M. Grehant has invented a most ingenious apparatus, which indicates that the glass receptacle is full and must be emptied into the superior reservoir. It consists of a floater, composed of a metal rod in the form of an S, which rests on the upper edge of the glass receptacle, and is passed through several pieces of cork; the rod, which becomes subsequently vertical, is directed by a support, and terminates in a horizontal portion which fixes the lever of a metronome, which is out of the vertical direction; as soon as the water reaches the cork, the floater is raised, and the metronome begins to beat.

Weight of Yeast.	Temperature. Degrees	Length of Duration of Experiment.	Oxygen supplied.	Oxygen found again.	Oxygen absorbed.	C O 2 exhaled.	C O 2.—0.
			cc.	cc.	cc.	cc.	
5 grs.	0.	1 hr.	8.16	5.76	2.4	2.1	0.87
"	13.8	30 min.	8.3	5.86	2.44	2.6	1.06
"	19.5	30 "	7.96	5.1	2.8	3.9	1.4
"	26.	30 "	8.3	5.2	3.1	5.8	1.9
"	30 3	30 "	7.96	4.03	3.93	9.4	2.4
"	40.	15 "	9.26	5.8	3.46	11.2	3.2
"	46.3	30 "	9.2	4.26	4.94	22.3	4.5

The experiment lasted from half an hour to an hour; the vial was then removed and plunged into cold water for a few minutes. The cork was drawn, and the vial was placed under the mercury above the tap of a mercury pump; the air, water and yeast were transported into the empty receptacle (Grehant's apparatus) by means of a capillary tube and a movable vat; the gases were ex-

tracted and analyzed on mercury and then in eudiometer. The carbonic acid contained by the yeast, measured by a first experiment of extraction, was carefully subtracted from the volume of carbonic acid, furnished by the five gr. of yeast, and which equalled about 1 cc. 2. The results obtained from 0° to 46° show that the yeast always contained a notable proportion of oxygen.

MM. Grehant and Quinquand conclude from these experiments that the relation CO_2 to O varies with the temperature,and that the isolated cells of yeast do not, therefore, present the same phenomena as mushrooms and tissues without chlorophyl, which, according to MM. Bonnier and Mangin, preserve an invariable relation, CO_2 to O, notwithstanding change of temperature.

MM. Grehant and Quinquand have made further experiments which show that the yeast preserved in a temperature of 40° C. procures oxygen and carbon from its own substance.

1. 20 grs. of yeast, diluted with 100 cc. of distilled water, were introduced into the receptacle of the mercury pump; the air was excluded with Solaz' tubes and the mercury pump. The water in the bath was heated to a temperature of 38°; 15 cc. 9 of carbonic acid were produced. The temperature was increased to 40° and maintained during 6 hours; 42 cc. 7 of gas which was completely absorbed by potassium were produced; it was therefore, pure carbonic acid.

2. The experiment was continued during a longer period with the same quantity of yeast. At the end of 20 hours, with a temperature of 39°, 59 cc. of carbonic acid were produced. 24 hours later, 211 cc.9 of carbonic acid were produced, but this time the gas was mixed with a certain amount of hydrogen, a characteristic of putrefaction; Grehant and Modezejewsky's experiments have shown that carbonic acid, hydrogen and even nitrogen are produced when albuminoids are heated to a certain temperature. Yeast contains albuminoid substances in its cells; when this decomposition takes place, yeast will no longer cause sugar to ferment.

M. Joannes Chatin has made some interesting researches concerning intestinal myasis. Myasis is a name given to the affections caused by the larvæ of dipteræ. It has two principal forms, first, cutaneous, and, second, intestinal myasis. The existence of cutaneous myasis is universally admitted; that of intestinal myasis has been frequently contested. M. Chatin lately showed at the Paris Academy of Medicine some larvæ of the teichomyza fusca, found in the dejections of and in the matter vomtted by one of his patients. M. Laboulene, M. Pruvot and others have furnished undeniable proof of the existence of intestinal myasis. The larva of teichomyza fusca, by its peculiar organization, is especially adapted to live in the intestine. It is able to collect a considerable quantity of fluid in which to breathe, owing to its unusually capacious tracheal system; it has only two pairs of stigmata, peculiarly disposed; the animal can shut its posterior stigmata which are affixed to long caudal extremities, instantly; the anterior stigmata resemble the pseudo-branchia of the ephemerides larva; certain zoologists regard this disposition as intended to allow of aquatic respiration, when aerial respiration is impeded. The T. fusca larvœ are remarkably refractory to asphyxia; they will live for several days in water, oil, etc., or in the stomach of different mammiferæ, when introduced experimentally. Errors are, however, frequently made in determining the presence of this larva; foreign bodies of similar aspect, found in the organization, are often mistaken for the larvæ of T. fusca. M. Chatin relates the following instance: A whitish, elongated body was recently sent to him as a larva of T. fusca for examination. M. Chatin examined it with a microscope, and found that the trachea it presented were vegetable, and not animal trachea. When dissected with a *loupe montee*, the pseudo-larva proved to be a fragment of fruit, incompletely digested. The ovarian chambers still contained a grain; the double extremity was formed by the remains of the style. This example shows that it is essential to examine the larviform bodies with the

greatest care, before pronouncing upon their zoological identity.

M. Petit suggested the following elixir to the Societe de Medecine pratique de Paris:

Saccharine, - -	3 grammes.
Bicarbonate of soda,	1 gr. 50.
To be dissolved in	
Concentrated elixir of la Grande Chartreuse,	100 centigr.
Spirits of wine, - - -	900 centigr.
Filter.	

The following details on saccharine were given at the same time by M. Petit.

Sulphimide benzoate or benzoic anhydro-orthosulphimide was discovered by Fahlberg and Remsen in 1879. The mode of preparation is described in Wurtz's dictionary. Saccharine, or as it should be called, saccharinic acid, is a monobasic acid; 0. gr.45 bicarbonate of soda are necessary to saturate 1 gr. saccharinic acid.

A very interesting work on the eye in two parts has just been published by Delahaye. The first part, "Traite Complet d'Ophthalmologie," is by L. de Wecker and E. Landolt, and treats of the circulation of the optic nerve and the retina, and the relation between the circulation of the eye and that of the brain.

The second part, "Maladie du Nerf Optique," by L. de Wecker, treats at length of optic neuritis. The chief clinical varieties enumerated are rheumatic neuritis, neuritis from intoxication, suppression of the flux, diabetic and hereditary neuritis.

There are also chapters on atrophy and degenerescence, congenital anomalies and operations which are effected on the optic nerve.

Numerous and well executed engravings illustrate different passages of the work.

Since 1874 M. Lucas-Championniere has taken advantage of the antiseptic discoveries to practice trepanning of the skull.

This operation, practised in prehistoric times, and at the present day amongst barbarous nations, had been so badly effected in the 18th century that it was completely abandoned in the beginning of the present century.

Sedillot was the first to re-introduce the operation; and the researches of Broca and of M. Charcot on cerebral localizations gave indications for its use to better advantage than formerly.

M. Lucas-Championniere has done the operation fifteen times with great success.

Six times he trepanned on account of unbearable pain in the head, accompanied by vertigo and involuntary movements; relief was obtained and in some cases perfect cure.

He operated in four cases of epilepsy with medium success; in two cases of symptomatic epilepsy, the results were excellent. Not one of the fifteen patients presented suppuration or fever, and from the head of one, M. Lucas-Championniere extracted an osseous knob measuring 8 centimeters in its largest diameter and 3 centimeters in the smallest diameter.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Dudley S. Reynolds, A. M., M. D., Louisville, President; John I. Gray, M. D., Chicago, Ill., Secretary.

Committee of Arrangements.—H. Tuholske, M. D.; Y. H. Bond, M. D.; R. M. King, M. D.; H. H. Mudd, M. D.; H. C. Dalton, M. D.; Frank R. Fry, M. D.; A. H. Meisenbach, M. D.; Josephus R. Lemen, M. D.; Spencer Graves, M. D.; A. H. Ohmann-Dumesnil, M. D.; Robt. L. Thomson, M. D.; N. B. Carson, M. D. I. N. Love, M. D., Chairman.

St. Louis, September 3, 1888.

This Association will meet in Pickwick Theatre, Jefferson and Washington Avenues, in St. Louis, September 25, 26 and 27, 1888, two weeks later than first announced.

This date was selected in order that the cheap railway rates during the Carnival season of St. Louis might be made available.

The programme is perfected, and the entire time of the meetings from 9:30 A. M. to 5:30 P. M., each day, will be taken up with strong papers, and full and free discussions,

there being nothing in the way of extraordinary or irrelevant business, all such matters being settled by committees, without discussion. The three evenings will be consumed by public and private entertainments, and each and every delegate may be assured that constant efforts will be made in the direction of catering to his comfort and enjoyment.

The sentiment animating the committee of arrangements and officers of the Association in planning this meeting, has been to provide for good, solid scientific work while the sun shines, and at night let recreative effort and pleasure reign.

All physicians west of the Allegheny mountains are invited to become members, eligible to membership under the following from the Constitution:

ART. III. Membership in this Association shall be limited to those members of the profession of medicine who acknowledge allegiance to the American Medical Association, by signing its code of ethics. No individual who shall be under sentence of expulsion, suspension or disability, from any recognized State. County, District or Local Medical Society, shall be eligible to membership in this Association until said disability shall have been removed. All applications for membership shall be referred to the Committee on Credentials. The annual due shall be $3, payable in advance.

For further information, address

I. N. LOVE, M. D.,
Chairman Committee Arrangements,
Lindell and Grand Aves., St. Louis.

N. B. Kindly inform us prior to Sept. 24, whether or not you can attend. Be sure and secure receipt from Local Ticket Agent for full fare.

AMERICAN PEDIATRIC SOCIETY.

BALTIMORE, August 10, 1888.

The first meeting of the American Pediatric Society will be held in Washington, D. C., September 18, 19, 20, in a parlor at the Arlington Hotel, Vermont Avenue and H Street.*

The session on Tuesday, 18, will commence at 10 A. M., and will be devoted to the permanent organization of the Society. The further order of exercises will be decided upon after the permanent organization is effected.

The following papers will be read and discussed during the meeting:

"The Place of Pediatrics in Medicine," by A. Jacobi, M. D. New York.

"Clinical Studies on the Pulse in Childhood," by John M. Keating, M. D. Philadelphia, and William A. Edwards, M. D., Philadelphia. To be read by the latter.

"Treatment of Whooping Cough by Antipyrin," by L. Emmett Holt, M. D., New York.

"Aneurism in Childhood," by A. Jacobi, M. D., New York.

WM. D. BOOKER, M. D.,
Secretary pro tem.,
851 Park Avenue, Baltimore.

*The proprietor of the Arlington Hotel has kindly placed the room at the disposal of the Society without charge, and offers to provide accommodations at reduced rates to the members of the Society.

SELECTIONS.

ON THE PRESENT POSITION OF THE STUDY OF DISEASES OF CHILDREN IN RELATION TO MEDICAL EDUCATION.

BY W. B. CHEADLE, M. D., F.R.C.P.

This Section of Diseases of Children, gentlemen, cannot boast of ancient standing or a long record of regular and continuous work. It has had but a brief and intermittent existence. It did not come into life until 1883, at the meeting held in Liverpool, but in that solitary session it did useful and notable work. Dr. Gee, the President, delivered a most interesting and scholarly address, and the discussions on Rheumatism and on Infantile Diarrhea, ably introduced by Dr. Barlow and Dr. Ballard, were most instructive and successful. In spite of this promising commence-

ment, however, the Section did not reappear until this year 1888. We are like the American aloe, which only blooms after many years, and then dies down, flowering again only after a certain term. We, too, require apparently a period of rest, during which we slowly mature, before we are able to blossom and bear fruit again. In our case the period of incubation would seem to be a cycle of five years.

I do not know the conditions which really determine the presence or absence of a separate Section for the Disease of Children at these meetings, but I think this intermittent recognition may be partly due perhaps to the existence, in the minds of many, of a feeling of doubt as to the expediency of separating the diseases of children from the general study of medicine and surgery—a reluctance which I must confess I largely share—to constitute permanently anything like a distinct and separate department of this branch of medical knowledge. My distinguished predecessor in this chair declared that art was not yet so vast nor human wit so narrow that children's diseases need be made a specialty; and that he felt that his knowledge of children's diseases would be much poorer and meaner were it not for the larger experience gained at a great general hospital. I likewise, as a physician to a large general hospital, as well as one for children, can confirm this experience, and heartily endorse the judgment.

At the Children's Hospital in Great Ormond Street, with which I have the honor to be connected, it so falls out that every member of the staff, with hardly an exception, is likewise attached to some general hospital and school. I believe this system is right and wise. It insures against a too narrow concentration of view upon a limited field of pathology and practice. It is a great safeguard against the worst developments of specialism.

Possibly another reason why this Section has not become permanently established hitherto is that the vast importance of the subject with which it deals is imperfectly realized.

I have said that I do not advocate the establishment of children's diseases as a distinct speciality. But, on the other hand, I would insist with all earnestness that, although a speciality may be unnecessary, a special study of children's diseases is essential to the student. No one will, I think, venture to question the high importance of the subject in any scheme of medical education. To general practitioners especially, who form the great bulk of the profession, an ample practical acquaintance with the diseases of children, and especially with the disorders of early infancy, is of vital consequence. Children form the majority of their patients, and the fragile and growing bodies of young infants are singularly susceptible of being influenced by treatment for either good or evil. They require a nicety of discrimination, a delicacy of skill in management beyond the common.

Moreover, the medical man is compelled to deal with most cases himself. Many disorders of early life are sudden of onset and acute. He cannot hold his hand and wait to consult some expert, as he can with so many of the so-called specialties. If a patient is going blind, or deaf, or has a skin eruption, or a throat trouble, there is usually ample time to confer with the oculist, or the aurist, or the dermatologist, or the throat doctor. Not so with choleraic diarrhea, or croup, or convulsions, or intussusception. And then look at the terrible mortality amongst children—a measure of the enormous difficulty and responsibility of dealing with illness in these patients. The death-rate is eight or ten times as great as with adults; and yet to fight against this we are content to send out our students unpracticed, inexperienced, and untaught. We provide him with ample instruction in diseases of the eye, the ear, the skin, the throat, which will be of comparatively small use to him, and teach him little or nothing about the diseases of children, which would be of enormous value to him. For, notwithstanding the extreme practical importance of a knowledge of the diseases of children, but scant attention is paid to the teaching of

it, and I am glad to have this opportunity of directing attention to what appears to me to be a serious blot upon our system of medical education.

It is now nearly forty years since Dr. Latham, Sir Thomas Watson and other leaders of medicine of that day pointed out the extremely defective condition of knowledge with regard to diseases of children in the profession generally, and insisted upon the urgent necessity of more adequate provision for instruction in the subject.

I am afraid the situation to-day is very much what it was then. This question is one upon which I may claim to speak with some confidence. As whilom dean of a medical school, as physician to a general hospital as well as one for children, and as an examiner in medicine almost continuously for the last ten years, I have enjoyed unusual opportunities for forming a correct judgment in the matter. When examining, I have always made a point of setting questions upon diseases of children. My uniform experience, accumulating through this long term, is that the candidates are, as a rule, lamentably ig norant of the subject. At the last examination in which I took part exactly fifty candidates passed through my hands; although many of these passed excellent examinations in the main, I cannot honestly affirm that a single individual of them all possessed a satisfactory working knowledge of the diseases of children. Most of them, indeed, knew little or nothing of this part of medicine. It was obvious that they were destitute of any clinical experience of the common disorders of infancy. Some, indeed, had never seen a case of infantile convulsions, or of thrush, or choleraic diarrhea, or heard the sound of laryngismus. Whooping-cough and measles were outside their experience. And yet these men may be confronted by some grave crisis, a laryngitis, or a convulsion, or an intussusception, or a case of choleraic diarrhea, and have to deal with it, on their own responsibility, immediately on entering practice. I have more than once been told by medical men that they dreaded to be called into a case of illness in an infant, on account of the extreme difficulty which they found in making any clear diagnosis; and one even went so far as to confess that he never attempted to decide precisely what was the matter, but treated all little children on "general principles." Numbers of practitioners, no doubt learn to treat children with accuracy and skill; but this knowledge is acquired after their student days are over, by the experience of actual practice.

It may be thought perhaps that the means of instruction have largely increased since the days of Latham and Watson. It is true that many children's hospitals have been founded, and have done good service in developing our knowledge of children's diseases; and special wards for children have also been opened in many general hospitals. Yet, on closer examination, much of this advance will be found to be illusory, and its value lessened by several drawbacks. In the first place, in all children's hospitals, in every part of the kingdom as far as I know, with the single bright exception of the East London Hospital, at Shadwell, children under 2 years of age are not admitted except in very limited numbers. The reason of this lies in the fact that they require more nursing, are more costly therefore, and they raise objectionably the death-rate of the hospital. They are accordingly practically excluded, except in special and and urgent cases.

Now, it is this period of the first two years of life which is so fruitful in the diseases distinctive of infancy and childhood. It is the *representative* period. It is the period when the congenital faults of structure and of inherited disease betray themselves. It is the period when all the troubles of feeding and dentition occur, with the consequences which they involve. It is the period of congenital syphilis, of rickets, of scurvy; of diarrhea, of atrophy, of convulsions, of intussusception. The ordinary disorders of childhood are excluded, and even more severe and rarer diseases are usually delayed until the symptoms become urgent, and the time for early diagnosis is past and gone. It is true that the

out-patient departments of these hospitals, to which the smallest infants are admitted and treated by skilled and able men, afford a wide field for observation and practice in the complaints of early infancy. But out-patient practice labors under this serious defect, that the patients do not remain under continuous observation and control, and thus fail to afford an accurate presentation of the quickly varying phases of disease in infancy, or the influence of remedies upon them. There exists, however, a far more serious difficulty still.

The special hospitals for children prove after all, in existing circumstances, practically of little use to men during their student's course. They are indeed largely attended in many cases; at the hospital in Great Ormond Street, for example, there have been upwards of 2,000 attendances during the past year; but the men who thus flock to the wards and out-patient rooms consist chiefly of qualified practitioners. They come from nearly every country under the sun; but the ordinary English medical student is as a rule conspicuous by his absence; he is sparsely represented by a few meritorious enthusiasts only. The fact that these special hospitals are situated at a distance from most of the medical schools is a serious drawback. The time of the student is already fully occupied by lectures and practice at his own hospital; attendance at the special hospital is not compulsory, the subject is not prominent in examinations, and so the man whose chief object is to get through these examinations does not find it worth while to attend. As Dr. Latham remarks on this very point, "any class of diseases not falling within the common range of professional education, and having no ready opportunities provided for its study, has a good chance of never being studied at all."

In a few instances, when the special hospital stands near, as the Evelina Hospital to Guy's, and the one at Great Ormond Street to University College Hospital, a certain number of earnest students attend with some regularity. This, however, is exceptional; as a general rule the statement is true that to the great mass of students at the medical schools these special hospitals are quite useless. If the ordinary student gains any knowledge of the subject he must obtain it in his own hospital and school. What means then exist for the clinical study of children's diseases at the general hospitals? What instruction is given there by competent teachers?

I have obtained returns from every school in London, and from nearly every other in the United Kingdom, and the information I give is based upon these official data. I find that with one or two honorable exceptions the provision at present existing for the instruction of students in this subject is utterly inadequate and unsatisfactory. In the first place, it appears that only about half the general hospitals possess children's wards, although some children are received into the general wards; in very few is any special instruction given in the subject; and in this case also there comes in the same paralyzing regulation as at the special hospitals, namely, the exclusion of infants under two years of age except in urgent cases. Secondly, the infants admitted to the out-patient department are seen by the assistant-physicians together with adult patients, or, as in many instances, relegated to the obstetric department.

Now in those cases where the infants come under the care of the assistant physicians, they are merged in the crowd of out-patients who throng the department in such overwhelming numbers, that the patients have to be seen with extreme rapidity. I can testify from long personal experience of this work, to the extreme difficulty or indeed, impossibility of finding time to make use of them for clinical instruction. This can only be done by classing the children apart, and making special arrangements for the purpose. This plan has, I believe, been carried out in one or two schools with conspicuous success.

Where, on the other hand, infants are relegated to the obstetric department, the case is still worse. Occasionally these patients are seen by the assistant obstetric physician, if he chance to take an interest in the subject.

More often, however, his heart is elsewhere; he is wholly absorbed in the more attractive pursuit of what is termed gynecology, and cares nothing for the ailments of children; so that, in the majority of cases, these infant patients, with all their representative maladies, pass to the resident obstetric officer, who deals with them as best he may; but "Quis custodiet ipsos custodes? What means has the obstetric assistant enjoyed for obtaining a knowledge of the subject? He has only just gained a qualification, and has been left as untaught in this subject as all other students. He has had little or no opportunity at his own hospital, at any rate, of learning this branch of practice under skilled teachers, and he has probably never sought it elsewhere. He cannot impart to others knowledge which he does not himself possess. He has to learn his work after appointment, more or less efficiently, by his own observations. The system of allotting children under two years old to the obstetric department is a vicious one throughout, unfair to the patients, unfair to the medical officer, disadvantageous to the students.

The picture I have drawn of the present state of education with regard to the diseases of children must be allowed to be unsatisfactory. It is, to the best of my belief, a true representation of the position of this question in the great majority of the medical schools in the United Kingdom. There are a few, however, which have already instituted a better order of things, and to these I would give all credit for their initiation of reform. At the Universities of Edinburgh and Aberdeen systematic instruction is given, both clinically and by course of lecture. At Owens College and at Charing Cross, in London, a similar improvement has been carried out with good results. Changes in this direction, on a more limited scale, have been made at one or two other schools. But these are the exceptions; in most of them nothing has been done; the old order remains, and the result appears in the striking deficiency of knowledge shown by the candidates in the examinations. A branch of medical art, in the highest degree necessary to the practitioner, is deplorably neglected.

As I have pointed out the fault I may be expected, perhaps, to suggest the remedy. I shall not presume to lay down any detailed scheme, but the points of main importance in any reform should, I think, be these—

1. Let the examining bodies make it clear, by insertion in their regulations and schedules, that a competent knowledge of the diseases of children will be required of candidates in the final examinations.

2. Let them also require, as a part of hospital practice, an attendance of three months on a course of clinical instruction in diseases of children, which shall include those of early infancy, at either a general or special hospital.

3. Let children under two years of age be admitted freely to the children's wards of the general hospitals and to the special hospitals.

4. Let an organized system of instruction, both practical clinical instruction and lectures, be introduced at each medical school.—*Brit. Med. Jour.*

A CASE OF ABSENCE OF VAGINA.

BY ARCH DIXON, M. D., HENDERSON, KY.

Early in April of the present year Miss A. C. aged 17, applied to Dr. P. H. Griffin for relief from difficult and painful micturition. The statement of the patient was that for a long time she had been troubled in this way, the urine being voided with the greatest difficulty, it requiring from half an hour to three quarters of an hour to empty the bladder. She had never menstruated, but had suffered with headache, pain in the back and loins, at intervals for two years, with an occasional discharge of a few drops of bloody fluid. Examination was made by Dr. Griffin, and the discovery made that there was entire absence of the vaginal outlet; nor could any meatus urinarius be found. The same day I saw the patient, who was a well-formed girl of medium height and weight.

The mammary glands were well developed, the pubes was covered with a rather luxuriant growth of hair, the vulva had a normal appearance at its upper extremity, the labia majora becoming attenuated an inch and a half below the pubes into a flat, smooth surface, having a cicatricial appearance. There was a rudimentary clitoris, but close inspection revealed no outlet, either urethral or vaginal. Examination per rectum demonstrated the existence of ovaries and uterus, the latter being somewhat enlarged and globular in shape.

Operation was proposed and accepted. April 17, the patient was etherized and placed in the lithotomy position; a very careful examination failed to disclose the meatus urinarius. With manipulation above the pubis and through the rectum, the bladder was compressed by Dr. John Young Brown, who succeeded in forcing a drop or two of urine through an opening so small that it was with difficulty that a very small myrtle-leaf probe could be passed into it; this was, however, accomplished, und the meatus and urethra gradually dilated until a sound could be passed into the bladder. With the index finger of the left hand in the rectum, on approximation, the tissue between the sound in the bladder and the finger was apparently not thicker than the vesico-vaginal tissue is usually found; there was no trace of a fibrous cord nor of anything indicating that a vagina had ever existed; the uterus could be distinctly felt. With the knees flexed upon the abdomen, the skin was snipped between the meatus urinarius and the anus for about an inch and a half. With the index finger of the left hand in the rectum, and the sound in the bladder for a guide, with the index finger of the right hand I rapidly succeeded in making an opening between the bladder aud rectum to the depth of three inches, when the uterus was reached; this opening was then enlarged laterally and was lengthened perhaps an inch or more, but as there had been some indication of a menstrual flow in the bloody discharge from the meatus, it was deemed best not to proceed further with the operation at this time, but to wait for the appearance of the menses, and, should they appear at the now dilated urethra, to take further steps, as might be deemed necessary. A glass plug (Sims) was placed in the newly made vagina and confined there by a T-bandage. The dilator was removed and the opening subjected to daily irrigation with carbolized water; the bladder was emptied daily by catheter.

Very little, if any, disturbance followed the operation; there was slight rise of temperature (99°) during the first three or four days, and at the end of two weeks the patient was permitted to leave her bed, with instructions to remove the plug daily and continue the irrigation. Orders were left with the nurse to inform me at once should any bloody discharge take place. On May 17, there was epistaxis with slight hematemesis, the latter due, no doubt, to the patient having swallowed the blood as it passed into the pharynx through the posterior nares; pain in the back, loins and hypogastrium was complained of, which lasted till the 21st, when a drop or two of dark blood made its appearance at the meatus. Uterine contractions were severe. The right index finger was passed into the vaginal opening and supra-pubic pressure made with the left hand; the uterus could be felt to descend and a few drops of blood were forced out through the urethral opening. A catheter was passed into the bladder and a careful search around and in the meatus revealed a minute opening at its lower border into this a filiform bougie was carefully passed until it reached the uterus; this was followed by a uterine sound and an attempt at dilatation made, but with pain so severe that it was decided to anesthetize the patient and proceed to dilate the canal. The opening at the lower border of the meatus yielded badly, and its lower edge was clipped with scissors and torn down with the finger; the canal was then dilated with sounds until the index finger was admitted and the cervix uteri was reached. Further dilatation was made until a Sim's glass dilator would pass, pressing down the posterior tissue of the canal until the opening previously made was almost entirely closed. The retained men-

strual fluid was discharged gradually for several days, when, under rather severe uterine contractions, a large discharge of black, tarry-looking blood, filled with clots, took place, since which time there has been a general improvement in the condition of the patient,and she expresses herself as delighted with the ease and comfort with which she empties her bladder, and she expressed it, "being now made like other women."

REMARKS.—The foregoing case was certainly a remarkable one in many respects, and the error committed in the management of it seems to me to be a justifiable one. After the sound was introduced into the bladder, a presumably careful and sufficient examination was made, and the conclusion arrived at that the vagina was absent and that an operation should be made. This opinion was concurred in by three other physicians. The sound glided into the bladder, as did the catheter, giving no sign of an opening save that of the urethra, nor was any suspected by me, for I gave no credence to the escape of menstrual fluid through the meatus urinarius, and should have proceeded to empty the uterus at one operation had it not been deemed best, under all the circumstances to wait. Emmet, in speaking of such case,says:

"The external portions of the organs of generation are generally well formed, but on exposing the vulva, the orifice of the urethra will be found rather lower than natural, and at the bottom of a shallow sulcus, and there will be no appearance of a vaginal outlet. In absence of the vagina, the urethra is always unnaturally relaxed, but the power of retention of urine remains unimpaired."

In this case the external parts were not well formed, there was no perceptible urethral orifice, and it was only after the closest search that it could be found at all. The tissue from the meatus to the anal orifice was firm and smooth with no suspicion of a vaginal outlet.

The same author further says, in regard to diagnosis:

"In congenital absence of the vagina, only a shallow sulcus is present between the labia. Some aid may be gained for forming a diagnosis from the thickness of the septum between the bladder and the rectum, and this is to be ascertained by means of a finger in the rectum and a sound in the bladder. In the congenital form the septum will be found as thin as the recto-vesical one in the male,since there had been no development of the muscular and other tissues forming the vaginal wall. But after the vagina has been once formed and the uterus has for a while performed its functions, the vaginal wall will remain, after accidental occlusion, even thicker than before, so that there will be little difficulty in forming an opinion, even if the presence of the urethra could not be detected. Under ordinary circumstances there can be but little difficulty in forming an accurate idea of the true condition. In the absence of a vagina with accumulation the condition might be complicated by the occurrence of a hematocele, or a collection of pus in the pelvis, but a careful investigation of the case will remove all such difficulties of diagnosis."

In the case under consideration there was only a shallow sulcus between the labia. With a sound in the bladder and a finger in the rectum, the septum between the bladder and rectum did not seem to be thicker than the recto-vesical septum in the male; there appeared to be an entire absence of the muscular and other tissues forming the vaginal wall; the uterus was present and enlarged, evidently from accumulation as there was no complication in the case. Under all the circumstances, I repeat that the error committed in the management of the case seems to me to have been justified. The girl is now well and her last menstruation was normal.

ICHTHYOL IN PULMONARY DISEASES.

BY THOMAS J. MAYS, M.D.

Ichthyol, in common with many other valuable agents, has been introduced by the German medical profession, and it has already achieved a reputation which is likely to be permanent, at least so far as dermatology and

surgery are concerned. Whether it will prove as effectual in internal as it has in external medication, remains to be determined by future research, and in the present paper I merely desire to direct attention to the possibilities of the drug in diseases of the respiratory organs.

Ichythyol, or fish oil, its literal English meaning, is a product which is distilled from a bituminous rock discovered about six years ago in the Tyrol, near Seefeld. According to Prof. von Fritsch, the bitumen of this rock constitutes the remaius of decomposed animal matters, chiefly derived from fish; hence its name. "The products of distillation of this rock are treated with sulphuric acid and the resulting substance is neutralized either with ammonium or sodium, and the ammonium or sodium ichthyolate is obtained, which consists of a thick fluid resembling tar in appearance. It differs from known tars, vegetable and mineral, not only in odor, but especially in its physical properties. It is soluble in water and partly so in ether and alcohol. It is volatile to a certain degree. It is rich in sulphur, containing about fifteen per cent. in a condition of such intimate union that it cannot be separated without complete decomposition of the substance.

Dr. Unna, who first recomended it as an important application in skin diseases,found that when it is constantly applied to the healthy skin for weeks, and even enclosed by an impermeable covering, it does not produce dermatitis; which would inevitably follow the application, under like conditions, of an ointment containing ten per cent. of sulphur (*Pharmaceutical Record*, May 15, 1885). According to the physiological experiments of Professors Baumann and Schotten, it produces no toxic effects in dogs in less than two drachm doses, while in doses from three to five drachms it brings on copious intestinal discharges. Professor Nussbaum took as much as seventy-five grains himself, without experiencing the least inconvenience. Little is therefore known of its physiological action, and a more thorough and intimate study of the drug in this direction is much desired.

My attention was first seriously called to this substance by the very practical paper on Ichthyol in Surgery, read by Dr. Edward Martin before the Philadelphia County Medical Society last winter, in which he sums up his own study of the action of the drug, externally applied, in cervical adenitis, in inflammatory indurations of the subcutaneous tissue, in furuncles, in cellulitis and in erysipelas, and, with a few exceptions,he renders a very favorable verdict concerning its influences in these diseases. Testimony of a similar character comes from Professor Nussbaum, who recommends it very highly, both internally and externally, in gout, in rheumatism, in hyperemia of the fauces, of the larynx, of the pharynx, in neuralgia, etc. The latter authority believes that it is in virtue of its power to constrict the capillary blood-vessels that ichthyol reduced congestions and inflammatory swellings of the cutaneous and mucous surfaces; and the surprising rapidity with which it disperses local hyperemias, as it does erythema of the nose, eczema of the face, for example, which often disappear after a few applications, is evidence that it possesses a marked influence on these structures.

These considerations have led me to its internal employment in the various inflammatory phases of bronchial and pulmonary diseazes, especially in those which are characterized by severe cough,copious expectoration, dyspnea, etc. At first I administered it by mouth alone, then conjointly with inhalation, but, latterly, I have used it almost exclusively by inhalation, believing that in most cases the best results are obtained in this way. By the mouth I give it every four hours in capsules each containing from four to six grains, and for inhalation I employ a 25 per cent. watery solution, aud allow the patient to breathe it through a Genois' respirator four or five times a day, about one hour each time. It is sufficiently volatile practically to saturate the air which the patient breathes in this manner. Although it seems to have a disagreeable odor, patients do not as a rule, ob-

ject to its inhalation; some even prefer it to carbolic acid.

Its good effects are generally manifested in a lessening of the cough, in diminishing the amount of expectoration, in a relief to the dyspnea and in an improvement of the appetite. Associated with this amelioration of the symptoms there is usually an improvement in the physical signs—the moist rales disappear, showing that the catarrhal proliferation in the bronchial tube is checked. The dyspnea which is relieved by ichthyol is not that which is mitigated by nitroglycerine, stramonium or lobelia and which exists in virtue of a spasmodic condition of the bronchi; but it is that which depends on an accumulation or on an undue secretion of catarrhal material in the tubercular parts of the lungs.

Ichthyol is not recommended here as a panacea in all kinds of chest affections, but when it is properly adapted to the morbid conditions, that is, when it is given for profuse expectoration as in chronic bronchitis, bronchorrhea, pulmonary consumption, secreting cavities, etc., I believe it to be a positive addition to the therapeutics of pulmonary diseases.

I will append the clinical history of some cases in the chest service of the Philadelphia Polyclinic, in the Chest and Throat Dispensary and in my private practice which aave been treated with it.

Case I.—Male, aged 34, waa first seen March 20, 1888, when he had a cough and copious yellow expectoration which had existed for four years. He also suffered from dyspnea, night sweats, insomnia, had hemoptysis and gives a venereal history. Physical examination showed a small cavity and some mucous rales at right pex. On account of the venereal taint he was placed on eight grains of potassium iodide every four hours.

March 24. No better, cough and expectoration same. No change in the treatment.

March 27. No improvement. Ichthyol by the mouth, four grains every three hours.

March 29. Cough and expectoration much diminished, and thinks he is better in every way. Is now able to sleep. After this date the patient returned to work from which he had been absent for some time, and has continued to improve ever since. He is still under occasional observation, and there is no doubt that the ichthyol was of much service to him.

Case. II.—February 16, 1888. Male, 42 years old, stone-cutter, had cough and profuse expectoration ever since 1881, when he had pneumonia. He is losing flesh, had much dyspnea especially on exertion, and eats well. Physical examination shows a large cavity at right apex. Four grains of ichthyol every three hours were prescribed for him, and a general amelioaation of all his unfavorable symptoms took place. He resumed work a short time since.

Case III.—February 8, 1883. Male, aged 26, had hemoptysis, some cough and expectoration, swollen vocal bands, and was very hoarse. Dulness at left apex, associated with crepitation. Was treated with indifferent results until March 9, when he received four grains of ichthyol every four hours, and he has gradually improved ever since so far as the symptoms of his case are concerned.

Case IV.—March 9,1888. Female, 42 years old. This is a case of chronic phthisis with quite a large cavity at the left apex associated with a harrassing cough, free expectoration and sleeplessness. She was treated with various palliatives until March 27, without much relief, when she received four grains of ichthyol every three hours which gave her more ease than anything else. More recently the inhalation of ichthyol has been substituted for its administration by the mouth,and she says she can readily control the paroxysm of cough by inhaling it.

Case V.—March 27, 1888. Male, aged 23, has coughed for some time, yellow expectoration, no hemoptysis, dyspnea, appetite poor, night sweats, losing flesh. Weight one year ago 138 pounds, now weighs 122 pounds. His father, mother and one sister died of pulmonary consumption. Physical signs. tympanitic resonance at right apex extending to second intercostal space, and dulness from

there down to base. Dulness also extends from apex to base posteriorly associated with crepitation and subcrepitation over whole lung. Afternoon temperature $102^3/_5°$ F.

March 31. Temp. 103°, Four grains of antifebrin every three hours.

April 3. Cough less; temp. 101°; same treatment.

April 5. Appetite better; added four grains of ichthyol every four hours to the other treatment.

April 6. Feels about the same; temp. 104°. Six grains of antifebrin every three hours and same amount of ichthyol.

April 9. Temp. 104°. Seven and a half grains of antifebrin every four hours.

April 16. Temp. 103°; same treatment.

April 13. Temp. 104°. I now gave him a 25 per cent. aqueous solution of ichthol to inhale in respirator in connection with the same dose of antipyrin.

April 30. Temp. 102°; same treatment.

May 7. Temp. 100°; cough and expectoration much less; and appetite and general strength much improved; same treatment.

May 28. Coughs and expectorates very lit tle and only in the morning; appetite very good; temp. 101°. P. M. Dulness at anterior portion of right lung disappeared, and has diminished behind. No moist rales audible anywhere except a few over the site of the cavity; but a slight crepitation at base of same lung in front.

May 31. The antipyrin producing an itching rash, it has been discontinued since the 27th inst., and he only inhaled the ichthyol. Temp., 3 P. M., 99¼°.

Case VI.—April 7, 1888. Male, aged 18, cough for eight months, expectoration profuse and yellow in color, sometimes blood-streaked, dyspnea, losing flesh, night sweats, temp. $100^4/_5°$ in the afternoon. Physical signs; dulness over left lung, especially marked behind, associated with subcrepitation. Exaggerated respiration over whole of right lung. Antifebrin four grains every three hours.

April 16. Temp. 99½°; same treatment.

April 26. Temp. 100½°; ordered a 20 per cent. solution of ichthyol in water for inhalation, additionally to the antifebrin.

May 3. Temp. 100°. Says his cough and expectoration are improved, and that he breathes easier after each inhalation. Same treatment.

May 31. Temp. 100°. Feels very good; continued the ichthyol inhalation, but substituted antipyrin (seven and a half grains) for the antifebrin.

Case VII.—This case has been under my care since Oct. 1887. He was then 53 years old and had a troublesome cough, a profuse, tough, gray expectoration, hemoptysis, wasting night sweats; and the physical signs showed that the upper portion of the right lung was in process of infiltration. After the hemoptysis had been subdued the constant cough and the excessive expectoration remained as disturbing factors which nothing succeeded in checking until I gave him the ichthyol inhalations.

This case is a curiosity on account of the many agents which I had given him for the relief of his cough, without any decided permanent benefit. He had received potassium iodide, calcium chloride, mercury, geranium, euphorbia pilulifera, nux vomica, capsicum, chloroform, ether, tar, tulo, menthol, arsenic, ichthyol by the mouth, atropia, hypophosphites, quebracho, both the alkaloid quebrachine and the fluid extract, carbolic acid by the mouth and by inhalation, codeia, camphor, whiskey and cod-liver oil. Unquestionably these agents proved to be of some service, but not one or any combination of them had the same definite influence in controlling the cough and expectoration as the ichthyol had when I gave it to him in the form of inhalation. Both disappeared almost entirely within 24 hours after using it, and neither has returned up to the present time. It must also be stated that on account of a slight rise in his temperature he also received antipyrin during the time the ichthyol was employed, to which must be ascribed some of the beneficial effects.

This line of practice associated with the giving of antipyrin, antifebrin or phenacetin,

has been followed in every case which showed a similar disturbance of temperature, and additionally a most liberal nutritious diet was prescribed, together with such pulmonary gymnastics as seemed advisable.

It is our common experience that cough and expectoration in many forms of chronic chest troubles, especially in phthisis, are two of the most aggravating factors with which we have to deal, and the favorable rasults obtained from ichthyol in these as well as in a number of other cases in which it has been tested, recommends it at least for the alleviation of these symptoms and probably also for the amelioration of the local physical conditions which have been witnessed in several instances.

Whether ichthyol, by acting on the capillary blood-vessels checks the inflammatory changes in the lungs, or whether, by means of its large percentage of sulphur, it merely disinfects the bronchial tubes and in this way inhibits the catarrhal processes, or whether it acts in some other manner are questions which must be left open for future investigation.—*Med. News.*

THE USE OF LIVING BONE AS A BOND OF UNION AFTER EXCISION OF BONES AND JOINTS.

BY DR. J. WILLIAM WHITE,

Clinical Professor of Genito-Urinary Surgery in the University of Pennsylvania, Surgeon to the Philadelphia and German Hospitals, and Assistant Surgeon to the University Hospital.

The various opinions which have from time to time been held in reference to the union and repair of bone have until recently undergone but little change in their essential elements. The ancients believed that callus was formed by the extravasation of a gelatinous fluid, which gradually acquired consistence, and united the fragments in the same manner as a cabinet maker would glue together two pieces of wood. Duhamel regarded the periosteum as the "organ of ossification," and thought that after a fracture the periosteum of the two fragments first grew together and then swelled, forming a circular elevation around the line of fracture. This thickened membrane he thought was soon converted, first into a gelatinous and then into a cartilaginous substance, in which vessels developed and different points of ossification arose. Haller and Dethleef, after a long series of experiments, disputed this view, and concluded that the callus was formed by the gelatinous juice exuding from the medullary texture, and diffused all about the fracture. John Hunter referred the formation of callus to organization of the blood which is effused around the ends of the fragments; Fougeroux, to the extravasation of lymph which became organized by inspissation; Larrey, to the action of the vessels which are distributed through the substance of the osseous tissue. Howship, after a number of experiments, concluded that the theory of Hunter was correct, and that the blood which is effused immediately after the occurrence of a fracture becomes, under all circumstances, the medium in which the ossific process is first established. Bordenave believed that, instead of the callus arising from the periosteum or from the extravasation of lymph, it was due to a process analogous to that which nature employs for the union of the soft parts. Dupuytren taught in 1819 the doctrine of the union of fractures by means of provisional and permanent callus largely derived from the periosteum. Many years later Wagner taught that the periosteum plays the principal part in the repair of the division of bone caused by resection, and to such an extent that it is sufficient of itself to form any bony material which may be needed to replace the bone removed. In the cranial bones it is probable that the dura mater takes the part of the periosteum. He adds that reproduction of bone, although only in a slight degree, may take place even without periosteum from the medullary cavity or the diploe, or from the soft parts which surround the bones. He says that the substance of the bone itself does not appear to contribute to the reproduction of bone, and that Klencke is the only author who expresses an opposite

view. Since then the investigations of Paget, Klein, Billroth, Virchow, Cornil and others have taught that new bone builds itself up out of most different materials, and that the theories regarding callus, which endeavored to show that it was developed in but one way or out of but one substance, *i. e.*, extravasated blood, periosteum, exuded fluids, medullary tissue, etc, etc., each had a grain of truth, as all of those tissues occasionally take part in the repair of bone. The general belief still was, however, that both as to the life and the growth of bone, the periosteum was almost or quite essential, and it remained for Mr. Macewen of Glasgow to demonstrate, as I believe he has done by a series of well considered observations and experiments, the relative unimportance of the periosteal membrane and the possibility of ossification occurring around completely detached and isolated bony fragments. He has shown that, while on the one hand the periosteum is not the potent osteogenic factor which many thought it to be, on the other hand the soft tissues enclosed in the osseous tissue play the chief role in the development and reproduction of bone. I have had the pleasure of examining with him the case of regeneration of the humerus which he has recorded, and it certainly goes far to establish the truth of the above statement. Among the other propositions which he formulates is the following most important one: "Not only do detached portions of bone deprived of their periosteum live when reimplanted in their original position, but such portions are capable of living after transplantation. Parts of deeper layers of bone which had no periosteal connection have been transplanted and lived and grown." This statement is supported by both observation and experiment, and rests upon the fact that bone is produced and regenerated by proliferation of osteoblasts, and both its development and reproduction can take place indepently of the medulla and periosteum. So far from regarding the periosteum as the structure which can alone secure or reproduce bone, the surgeon who accepts these teachings will not trust it to regenerate bone unless it has adherent portions of sound osseous tissue, from which alone by the process of proliferation osseous regeneration can take place. In January, 1887, Dr. Bernays, of St. Louis, reported some experiments in which by the use of bone sawdust of various degrees of fineness, he produced bone in different positions, in the soft parts of the extremities, the abdomen and back of two dogs. These experiments have not been confirmed, and Dr. Bernays records the fact that all his attempts to graft large pieces of bone in animals were failures, the pieces simply becoming surrounded by "periosteal bone tissue" and remaining as foreign bodies, which subsequently had to be extracted.

The use of some method which should, in any case of ununited fracture, or in excisions of joints or bones,meet the two indications of complete fixation of the fragments and the supply of a healthy stimulus to bone reproduction, has long ago been recognized by the profession. Dieffenbach's ivory pegs, the wire sutures of Flaubert, the seton of Valentine Mott, and the steel pins employed in the treatment of ununited fractures, are examples of various attempts in this direction, which have had varying degrees of success. In 1878 Dr. Alexander Patterson, of Glasgow, reported a case of ununited fracture of both bones of the forearm, in the treatment of which a portion of a dog's bone was used as a means of procuring union. The ends of the fractured radius were separated about three quarters of an inch, and in this interval was placed a corresponding section of the humerus of a dog. It was held in place by a wire passed through holes drilled through the ends of the bone, and then through other corresponding holes in the fragments of the radius. Its periosteum had been first reflected for a short distance, and was then brought down over the line of junctiou of the bones. The ulna was simply wired together, and later was found firmly united; but at the end of six weeks union was not complete in the radius, and the wound remained open for twelve months. At the end of that time the dog's bone, reduced to about half its size,

came away, after which the wound healed completely. Without the knowledge of this unsuccessful case of Mr. Patterson, I recently, in a case of complete excision of the knee joint, employed a similar portion of dog's bone for fixation of the femur and tibia. The case was one of extensive tubercular synovial disease, with softening and disappearance of the cartilages, and with caries of the head of the tibia and the eondyles of the femur. At the proper stage in the operation one of the metacarpal bones of a medium sized dog was removed with thorough antiseptic precautions, and brought to me wrapped in a warm, carbolized towel. The piece of bone measured about three inches in length. A small cavity, just large enough to receive the end of the bone, was excavated in the lower extremity of the femur, and a corresponding one in the upper end of the tibia. The bone was then fitted tightly in place, and held the parts so firmly in position that the whole limb could be supported by the heel without displacement. It was dressed and placed in a bracketed wire splint. The subsequent course of the case was as follows: After a week or ten days, during which there was no elevation of temperature, there was a sudden rise to 102.5°. I found that there was an accumulation of sero-purulent fluid beneath the upper flap; on evacuation, this was found to be quite aseptic, but it continued to discharge for several weeks longer, gradually diminishing in quantity, but retaining a gelatinous consistence, possibly due to admixture with synovial secretion. The temperature also remained slightly above normal. The patient's complexion and general appearance, and a slight cough, gave rise to the suspicion of pulmonary tubercle, though no physical signs were then discoverable. The limb remained in good position, the mechanical effect of the bone peg having been all that could be desired. There was no evidence that it was acting as a foreign body or in any way interfering in the process of repair. On the other hand, there was no marked advantage to be observed from its use, many cases of excision of the knee, in my experience, having done at least equally well under the use of the bracketed wire splint, and without other means of fixation having been used. When I last saw the patient (in the middle of June) about six weeks after the operation, he was apparently nearly well, and was likely to have a good limb. The case cannot be said to demonstrate anything conclusively as to the use of living bone in these cases, beyond the fact that some portion of dog's bones can be made to serve the same mechanical purpose as ivory or steel pegs; and with no greater risk of acting as foreign or irritating substances. Many similar observations will be required to show whether or not they aid or hasten osteogenesis.—*London Lancet.*

HEPATIC ABSCESS.—TWO CASES.

BY C. V. BOARMAN, M.D., OF WASHINGTON, D. C.

F. W., married, aged 34 years, white, a fisherman by occupation, was seized with quite a severe attack of pneumonia, March 16, 1887; he was sick a week or ten days when he began apparently to convalesce, and became so much better that he left the city and went down the river to one of the fishing shores of which he had charge. He remained there possibly a week or ten days, exposed to inclement weather and constant wading in the river. Whilst pursuing his occupation he was again seized with intense pain in his right side, accompanied with cough and difficult breathing; owing to the pain and great debility he returned to his home and endeavored to treat himself, not sending for me until April 27, when I found him suffering with a well marked case of pneumonia, involving the middle and lower lobes of the right lung. In a few days the pain partially disappeared, and Mr. W. appeared to be better and left his room and came down stairs. A few days after the pain returned, of a sharp, lancinating character, accompanied with cough, rusty sputa, accelerated breathing, and high temperature.

This state of affairs went on from day to

day, the pain remaining and frequently becoming unbearable; the sputa changed and became bright red in appearance, which was the case for several weeks, when he was seized with several active hemorrhages, but prior to this his temperature fell, and I failed to use the thermometer afterward. About May 10, he was seized with a most severe pain in the epigastrium, shooting from the right hypochondriac region across to the left, tenderness on pressure, and a slight bulging of the parts just below the ensiform cartilage, very sensitive and hard to the touch.

He remained in this condition up to June 1, constantly spitting blood, which appeared to give him some relief from the pain, as when it would diminish or be checked by treatment the pain would become unbearable until the hemorrhage recurred.

About June 1, the pain became more intense, causing the man to writhe and scream out; it was located immediately over the epigastric region; the sputa became darker and mixed with pus of an intolerable fetid odor; bowels were regular and natural in color throughout his entire illness,emaciation great, breathing quick and difficult; countenance anxious and indicative of great suffering,with little or no sleep, as the most powerful narcotics had but little effect, either in relieving pain or producing sleep, although I administered morphia in half grain doses repeatedly, both by mouth and hypodermically.

I have never, in all my professional life, seen such intense suffering. His screams could be heard on the front street at times, and continued without intermission day and night for over a week, medicine having no effect. I would not like to mention the amount and quantity of narcotics and anodynes I gave this man in various ways, for fear of being thought untruthful; but suffice it to say that I made use of every opening possible to introduce medicine into his system, to give relief; then I attacked the surface with blisters, and sprinkling morphia on the abraded surface, but without relief; everything failed until tired nature could stand it no longer, and sleep came to the sufferer, giving him temporary relief. I sustained the patient during his entire illness by administering large quantities of whisky, ammonia, and the various beef essences, together with milk, eggs, etc. He would frequently consume over a pint of whisky in one night, together with nourishment of various kinds.

The case was a most obscure one in every way to diagnosticate. I was satisfied that the lungs were seriously affected, and after a careful exploration of the chest, came to the conclusion that there was fibroid degeneration, he having had a severe attack of pneumonia.

Now in regard to the other difficulty, the intense pain and the slight bulging in the epigastric region, hard and tense to the touch, and exceedingly tender, there was a difference of opinion; I upon two or three occasions imagined I could feel fluctuation, but another physician examined it and failed to agree with me. Another hint in regard to this enlargement was, a hereditary predisposition to malignant disease of the stomach existed, the man's father, grandfather, and other relations having died of cancer of the stomach.

In his case there existed very few symptoms of cancer, excepting the intense pain; beside, he was only 34 years of age, and did not present the peculiar cancerous hue of the skin, nor was he jaundiced.

I diagnosed the enlargement in the epigastrium as caused by the presence of an hepatic abscess, and even suggested the propriety of introducing an exploring needle into it, but was not allowed to do so.

The patient gradually grew worse from day to day. The emaciation and debility increasing, his appetite failed him, and his stomach began to rebel against the use of stimulants. About June 4, another peculiar symptom presented itself, and I was sent for in great haste, and must acknowledge that I was very much surprised upon my arrival; the man's face, neck and shoulders were puffed up out of all proportion to the rest of his body; his face was full and round, even his ears were enlarged; the arms and hands were very nearly as large again; severe paroxysms

of pain would occur, and his face would then become very dark, which discoloration became permanent; his cheeks, nose, neck and ears were of a dark blue color, his extremities as cold as marble and bathed in a clammy sweat. Ever symptom indicated immediate dissolution.

After the active use of stimulants and the application of heat to his extremities, and brisk rubbing, he rallied, but the swollen and discolored features remained. The swelling was emphysematous in character, and no doubt depended upon the escape of air from the broken down lung tissue.

These attacks of prostration would recur two or three times daily, but by administering stimulants, etc., he would rally, until at length he refused to take anything, nor would he allow anything to be done for him, stating that he wished to die, and that he would not suffer the torture of having his life prolonged.

He died June 10, 1887, at 10 A.M.

Post-Mortem Examination.—I made the post-mortem examination at 5 P.M., June 10, assisted by Dr. James Fraser. Body pale, livid, discoloration of the dependent parts to a slight extent, rigor mortis well marked, with no appearance of decomposition.

Upon making an incision into the abdominal walls I found but little adipose tissue; in the epigastric region, where the prominence existed, I found a large abscess of the liver, strongly adherent to the adjacent peritoneum and surrounding tissues; several smaller abscesses were dotted around the larger one. I had to rupture it to remove and elevate the liver. It was filled with a thick dark grumous substance (about a pint) and was located at the junction of the right and left lobes. After removing the liver I made a section of the right lobe and found another large abscess, not communicating with the above one. There were four abscesses in number, and numerous smaller ones around the larger ones.

My attention was drawn to the diaphragm by its peculiar bulging appearance just below the lower lobe of the right lung, and also the presence of several small abscesses scattered over the under surface. I made an incision into it and there was a perfect gush of fluid similar to that contained in the hepatic abscesses. After sponging out all of the above I examined the lung and found it entirely broken down and in a gangrenous condition, the odor being unbearable and the substance of the lung tissue dark and semi-fluid, similar to the sputa expectorated. I did not pursue my investigations any further, owing to the late hour and bad light.

Case II.—A lady, aged 69, had been sick for three years. Prior to this time she was comparatively well, stout, and without history of any transmitted disease. Three years ago she began to have attacks which led me to suppose them due to the passage of gallstones. I had examined the evacuations carefully after each attack, but could never find any calculi. The attacks increased in frequency and severity. For the past two years she had been confined to her bed. Then she began to have daily rigors and fever, accompanied with vomiting and intense pain in the epigastrium. Lately she had had one or two attacks daily. She was jaundiced and there was bile in the urine. The stools were light colored. A month prior to death she stopped complaining of the pain, but the vomiting continued daily until two days before death, when it ceased. She died March 7, 1888. The necropsy showed several abscesses in the liver.—*Jour. Amer. Med. Assn.*

We give in this issue of the Review an article from W. B. Cheadle, M. D., F. R. C. P., in which he calls attention of the profession to a much neglected department in the present methods of medical teaching in the British Empire—diseases of children—and his remarks are equally applicable to our own country. Extending the required attendance on didactic lectures to three regular terms is all right; a less number will not suffice to ground the student in the general principles of medicine, but a dozen courses will not make him competent to treat diseases of infancy unless he has had some clinical experience. Every graduate in medicine should serve as an interne in a large hospital before going into private practice.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 11. ST. LOUIS, SEPTEMBER 15, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

THE DIAGNOSIS OF INTESTINAL OBSTRUCTION BY THE RECTAL INSUFFLATION OF HYDROGEN GAS.

BY ARCH DIXON, M. D.

(Advance Publication of Extract from Paper to be Read before the Mississippi Valley Medical Association at Meeting in St. Louis, September 25, 1888.

On May 16, of the present year, I was called upon to do an operation for the relief of a strangulated hernia. The operation was done and a loop of ileum, intensely congested, surrounded by adherent omentum. The gut being also adherent to the sac, was released and returned to the abdominal cavity. The wound was dressed after Gerster's method. (1) The patient was removed from the operating table and placed in bed. Morphine one third of a grain, and atropia one one hundred-and-fiftieth of a grain was administered hypodermatically which procured only a short remission in the symptoms which had existed previous to the operation. The patient passed a restless night, pain was severe, though intermittent; vomiting continued with slight intermission, and the morning of the seventeenth found the patient with every symptom of Intestinal Obstruction. (2) "There is I think, a fairly common impression, that, when a strangulated hernia has has been reduced and the patient has recovered from the operation, no further evils will result beyond a possible return of the hernia, and with it a risk of a second strangulation. A piece of bowel, however, that has been strangulated in an external hernia and has then been reduced into the abdomen may be the cause of one of many different forms of intestinal obstruction. I do not allude to results immediately following reduction of the hernia, but to results that are comparatively remote. Among the former as is well known, it is not infrequent for the once strangulated loop to remain so entirely paralyzed after reduction as to continue the symptoms of obstruction until death ensues, and that too, without either becoming gangrenous or causing peritonitis." Evidently the operation for the relief of the strangulated hernia had failed to accomplish its object; there was either paralysis of the released loop, or obstruction within the sbdominal cavity. This was a question of almost vital importance. If the symptoms of obstruction were due to paralysis of the released gut, there was a possibility that the intestine might recover its tone and be able to perform its function. If on the other hand they were due to obstruction within the abdominal cavity, death was inevitable, unless operative measures were resorted to for its relief. I had only a few days before returned from the meeting of "The American Medical Association" at Cincinnati, where on May 11, I had heard Dr.Senn's paper on the "Diagnosis of Gastro-Intestinal Perforation by the Rectal Insufflation of Hydrogen Gas, and had seen his experiments demonstrating, beyond the shadow of a doubt that the gas could be forced by gentle and continuous pressure beyond the cecal valve and be made to traverse the entire intestinal tract. It occurred to me that perhaps by the use of the gas, as directed by Dr. Senn in the diagnosis of intestinal perforation a positive conclusion might be arrived at, as to whether strangulation still existed or whether the symptoms were due to paralysis of the loop of gut which had been starngulated in the hernia, and which had been re-

leased. For, in the event strangulation existed in any part of the intestine, it would be impossible to force the gas beyond the point of obstruction by any pressure which would be within the line of safety. On the other hand, should the symptoms of obstruction be due to paralysis, following and consequent upon the previous strangulation, there would be no special difficulty in forcing the gas through the entire intestinal tract, and by the use of a stomach tube, demonstrating beyond question the patency of the canal. The gas was at once prepared and passed into a rubber bag with a stop-cock, holding two gallons. The same apparatus which I had formerly used for the generation and insufflation of carbonic acid gas by "Bergeon's Method," was used and answered an admirable purpose. Assisted by Dr. John Young Brown, the insufflation was begun, the gas was forced out by gentle and continuous pressure, and, in a remarkably short time the gurgling sound caused by the gas passing through the cecal valve, as described by Dr. Senn could be distinctly heard. But only a small quantity had passed through the valve, when further ingress was stopped, the patient at the same time complaining of great pain. The lower part of the abdomen which was slightly tympanitic, became tense and hard with exaggerated tympanites. As much pressure as was thought consistent with safety was used, but the gas could not be forced higher up. There could no longer be any doubt that obstruction of some portion of the gut beyond the cecal valve, most probably of the ileum existed. Laparotomy was accordingly done and a loop of ileum was found strangulated beneath a band which extended from the Sigmoid flexure to the edge of the inguinal canal. The band was ligated at both ends of its attachment and devided between the ligatures. Search was made for other obstructions, but none were found. The wound was closed after the usual toilet of the cavity had been made, and covered with antiseptic dressing. It can not, as a general thing, be said that one case proves anything, but, from the experiments and demonstrations of Dr. Senn, I must regard the rectal insufflation of hydrogen gas in cases of suspected intestinal obstruction as a diagnostic procedure of great value. If the gut is clear there will be no difficulty in forcing the gas through the entire large and small canal into the stomach, when its presence is soon made known, not only by the distention and distress which it causes, but by eructations, and to make assurance doubly sure, a tube can be passed into the stomach. If gas be present it will at once escape, and by touching a lighted match to the end of the tube it will ignite. Nothing short of complete strangulation will prevent passage of the gas. Thus in cases of fecal impaction the symptoms of which so often resemble obstruction of graver character, the gas could be forced by and around the impaction, affording unmistakable evidence that strangulation did not exist. If the gas could not be made to traverse the entire intestinal canal, distention of the abdomen with exagerated tympanites over a given area would, as undoubtedly show that obstruction did exist.

(1) Aseptic and Antiseptic Surgery.—Gerster.

(2) Intestinal Obstruction—Treves.

Henderson, Ky., Aug. 28, 1888.

This case will be reported in full at the meeting of the Mississippi Valley Medical Medical Association, Sept. 25.

A CASE OF PURPURA HEMORRHAGICA.

J. T. CLEGG, M.D., SILOAM SPRINGS, ARK.

I am induced to report this case on account of the infrequency of the occurrence of such cases, also because of the meagre information found in our ordinary text books on the subject. So for as I know, nothing definitely is known as to the pathology of the disease; and its treatment is altogether empirical.

M., male, married, aged 56, dark complexion, blue eyes, coarse brown hair, a poor liver, and slovenly in his habits. On Friday he began to bleed from his nose, gums, and abraded patches on the backs of his hands. I

was called to him Sunday afternoon; pulse weak and quickened; he became syncopic on attempting to sit up.

Many domestic measures had been employed with no avail to control the bleeding. Owing to his alarming condition I lost no time in plugging the posterior nares, giving him stimulants, with ergot internally. This treatment controled all visible hemorrhage until Wednesday. I say visible because from the continuation of the symptoms and from the quantity of blood that he vomited and from the amount discharged by the bowel I am sure bleeding was going on from the mucous surfaces of the stomach and bowels all the time.

Numerous purpuric spots were found on various parts of the body varying in size and appearance from mere points to ecchymoses an inch or more in diameter. The latter were situated about the face and body, while the former were confined mostly to the lower extremities. I removed the nasal plugs Tuesday morning having let them remain about 36 hours. The epistaxis recurred the next day, Wednesday, but not so severe. But in spite of the plugs, Monsel's solution, cold water, ice, hot water, alum solution, and other remedies locally, and tinct. chloride of iron, ergot, sulphuric acid, vegetable acids, turpentine, and opium, internally, the bleeding recurred again and again until the anemia was extreme, attended by mental hallucinations and delirium sometimes violent, sometimes muttering.

At one time only did I observe an elevation of temperature, and that was in the second week of his illness—the thermometer registered 100° in the axilla. He only had renal hemorrhage one time, the third day of his illness. He had retention of urine one day during the second week. The actions of his bowels were irregular, partly on account of his weakened condition and partly on account of medicine taken.

Three weeks from the commencement of his attack,notwithstanding he was supposed to have diarrhea, I removed a great quantity of hardened feces from the rectum, in fact fecal impaction was not overcome for several days.

His condition was now one of extreme debility and emaciation, though at times he took nourishment readily and was apparently improving. At the end of the fourth week, bleeding had ceased to recur, and the purpura had disappeared, he was taking nourishment fairly, and from this time onward improvement was continuous, but at this writing, nine months later, he has not fully regained his strength, but has flesh.

The simplest form of purpura is characterized by minute extravasations in the skin and no hemorrhages into other parts,and is a very trivial affection. Purpura hemorrhagica indicates a condition in which not only petechiæ appear in the skin but ecchymoses, vibices and hemorrhages occur. It may be complication of and depend for its existence upon some specific disease, as rheumatic, typhoid, or malarial fever, but a very large proportion of cases are free from fever, and so far as I know are not attended by any specific condition. It is not limited by climate, race, sex or social condition, but is said to occur more frequently in females and is more common in the young than the old. Convalescents from fever are apparently liable to it. I am inclined to believe the nervous system is at fault, as the blood does not lose its coagulability, nor do the gums and mucous membrane become spongy as in scurvy, nor does the muscular system lose its tonicity. I have seen the disease in certain paralytics, and accompanying Pott's disease of the spine. Remedies given with special reference to their action on the nervous system are most potent in controlling the hemorrhage and improving the general condition.

The disease usually begins abruptly, the first symptom being epistaxis. In a few cases there is a prodromal stage of a few days, in which there is languor, inaptitude for exertion of any kind, sometimes with slight fever, and sweating of the lower extremities, with rheumatic pains. Then appear petechiæ or bluish-red spots, varying in size from a pin-head to that of a pea, on the legs and body, and less on the arms, and rarely on the face.

So long as the disease is thus limited, it is purpura simplex and is comparatively unimportant, and usually terminates in complete recovery upon improved regimen and tonic medication. But in purpura hemorrhagica the depression is more profound, the mere spots of the simple form are in some instances replaced by more or less ecchymoses. Hemorrhage from mucous surfaces is very common. The mucous membrane of the mouth is not an unusual source of hemorrhage but the spongy and sloughing gums of scurvy are entirely wanting.

Hemorrhage may also occur in the serous cavities, in the brain substance, in the areolar tissue in general. Sometimes bleeding from some mucous membrane is the only manifestation present, producing all the consequent evils of extreme anemia. Urticaria is often an accompaniment. Sloughing of the skin or mucous membrane may occur but does so very rarely.

The disease is regarded as a "Transitory Hemorrhagic Diathesis." Before hemorrhages occur the blood seems to have lost none of its normal qualities, but in the progress of the affection the blood becomes more watery and the white corpuscles increase in relative proportion,but at no time is the coagulability of the blood lost.

The course and termination of the disease is somewhat uncertain—the simple form recovering in a few weeks, the hemorrhagic variety continuing indefinitely. The patient may die of oft-repeated hemorrhage, of hemorrhage into some vital organ, or from some intercurrent malady. If the hemorrhages cease, the patient usually recovers very rapidly. Perhaps most cases eventually end in recovery, but the prognosis must be very equivocal when hemorrhage has recurred frequently or in old and broken down subjects. The disease may be confounded with scorbutus, hemophilia, progressive pernicious anemia, leukemia, or cerebro spinal meningitis. From scurvy it may be differentiated by the absence of the changes in the gums, the subcutaneous indurations and by the conditions surrounding the patient—his mode of living.

It is not my province to speak of diagnostic details, but it is very important not to mistake purpura for scurvy, as doubtless the treatment so successful in scurvy would be detrimental in purpura. In progressive anemia and leucocythemia the anemia precedes the hemorrhages, instead of succeeding as in purpura. The characteristic nervous manifestations that soon develop in meningitis distinguish it from purpura. Regarding treatment, ergot and opium in the case given did more toward controlling bleeding, than did anything else. I used, of course, in the general treatment, iron, bitter tonics, alcoholic stimulants and good food.

The editor of the *Canada Lancet* says: "There is such a thing as compound ignorance. A person is said, to possess this compound article when 'he is ignorant and does not know it.' " The *Lancet* thinks a large size specimen of this article is owned by a local newspaper man who under the title of "Mock Modesty" says: "Among the unwritten laws of the medical profession is a rule that none of its members shall advertise in the newspapers. This is mock modesty. Like the merchant's wares the physician's art is for sale." And this *solon* proceeds to settle the question, at least to his own satisfaction, and and winds up by saying, "Some M.D's in our community are far too prudish."

In the Section of Public Medicine at the late meeting of the British Medical Association, the discussion of the subject as to the best methods of disposing of sewage in cities and towns, formed a very important part of the proceedings. In a paper which we give in this issue of the Review, Dr. Alfred Carpenter presents some strong arguments in favor of the utilization of sewage on land by the so called "broad irrigation" plan.

The supreme court of the state of Missouri has rendered a decision to the effect that local option laws do not prohibit druggists filling prescriptions of physicians, calling for alcoholic liquors.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, SEPTEMBER 15, 1888.

SOME OF THE ADVANTAGES OF THE UNION OF MEDICAL SCHOOL AND UNIVERSITY.

This is the title of an address delivered at Yale University by Dr. William H. Welch, professor of pathology in Johns Hopkins University. He said:

"In this country and in England medicine is taught chiefly in independent professional schools without any connection or with only a nominal with a university. An important distinction exists between the independent medical schools of the United States and those of Great Britain, in that our schools have the power of granting degrees, whereas medical degrees and licenses to practice medicine can be obtained in Great Britain only by passing examination at the universities or before the examining boards of certain corporations. The assumption by independent schools of medicine of the power of granting the doctor's degree, without any control from a university or from the State, is a main reason in this country for the lack of uniformity in medical education, for the enormous number of medical schools beyond all necessities of the comunity, for the ease with which medical degrees can be obtained, and for the consequent degradation in the significance and the value of the degree of doctor of medicine."

There can be no question as to the advisability of placing the power to grant the medical degree in the hands of those whose interests are in no way affected by the number of degrees granted, but the discussions that have recently appeared in the British journals prove pretty conclusively that the method that obtains in Great Britain is not without serious objections. The only feasible plan is to have an examining board for each state.

Dr. Welch says: "There must be a union in spirit as well as in name. The influence of university methods and ideas must manifest themselves in the medical department: sympathetic relations must exist with other departments through the connecting link of all, the philosophical faculty, and the cooperation must be obtained of those physical and natural sciences, physics, chemistry, zoology, comparative anatomy, and botany, knowledge of which is essential to a complete medical education and to scientific research in every branch of medicine."

Such a course is well calculated to instil a spirit of scientific investigation in its followers. Some of our greatest discoveries have been the result of such a course. But the mass of busy practitioners have no time for such scientific research. The best that they can hope for is to make intelligent application of principles already known and to make deductions therefrom.

If Germany has led the medical world in the matter of scientific investigation, she has done so through her liberally *endowed* institutions. In the practical application of remedies for the relief of disease she is in no way in advance of America. The profession in this country are beginning to realize the fact that it is no longer necessary for students to go to Vienna to "complete their course of study." Medical journals give them all that is new in medicine, and our large cities furnish all the free clinical material that can be utilized.

Endowed institutions are each year becoming more popular with us, and it is highly probable that before many decades shall have passed Germany will no longer "lead the world."

To my mind there is one insuperable objection to combining the medical school with the university—the practical feature of the

former is entirely lost unless it is placed in a densely populated section and in proximity to free hospitals, whereas universities are better located in the suburbs of the city or in the country, surrounded by ample grounds. This feature has practically severed the medical department of Harvard from the University.

The branches which Dr. Welch would include in the regular medical curriculum should be mastered in a preliminary course.

He says: "There is of course just as much propriety but no more, in including inorganic and organic chemistry in a strictly medical course as in including physics, botany and comparative anatomy."

A knowledge of chemistry is positively necessary to a knowledge of the compatibility and incompatibility of drugs. Medicines cannot be prescribed intelligently without it. Pharmacy has rendered a knowledge of botany unnecessary to the medical student, and comparative anatomy, however interesting, can in no way be essential to a thorough knowledge of human anatomy.

Dr. Welch says that if proper apparatus were added to our medical colleges for the study of the branches mentioned, "it is not likely that such institutes in exclusive dependence upon a medical school would flourish." If this be true, it is presumptive evidence that these branches are not essential to a thorough practical medical education.

The acquisition of all kinds of scientific knowledge tends to the broadening of a man's views and the strengthening of his mental powers, but when it comes to the study of medicine there is so much of the practical to be learned that methods of scientific investigation that require extensive experimentation should be relegated to those who make it their special work.

The British Code of Medical Ethics.

A correspondent to the *British Medical Journal* asks: 1. Is it unprofessional to have a card in the local newspaper on changing residence? 2. Would it be unprofessional for a young practitioner just commencing practice to have a card in the local paper? To which the journal replies:

"Our opinion on the subject is in full accord with the principle laid down in the *Code of Medical Ethics*, which is to the following effect: that "to solicit practice by advertisement, card, or printed circular, or therewith to notify change of residence, is derogatory to the practitioner and incompatible with the dignity of the profession."

A part of this section of the British *Code* does injustice both to the physician and his patrons. It often becomes necessary for a physician to change his residence, and it is due his patrons that they should be notified as to where he may be found. Certainly nothing is more essential to the welfare of both the laity and the profession, than that the head of each household should be taught to appreciate the importance of employing some one physician to do the practice of the family. We fail to see wherein the dignity of the profession is compromised by the simple statement in the daily press as to a change of office or residence.

The *Code of Medical Ethics* adopted by the American Medical Association of the Mississippi Valley Medical Association and in fact nearly all the leading medical societies of this country in a section on this subject reads: "It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or hand-bills inviting the attention of individuals affected with particular diseases." According to the punctuation of the section quoted, the physician is not allowed the use of cards upon which are printed his name, office and office hours, and nothing else. But since the greatest sticklers for the Code use such cards, it is obvious that the meaning intended to be conveyed by this section is that it was derogatory to the profession, in any of the three ways mentioned to make known the fact that the physician treated any certain class of diseases.

If this be the true interpretation of the Code then a professional card, in the daily press, that does not claim for the physician

superior skill or knowledge over his fellow physicians is entirely compatible with the Code. As a matter of fact, in many of the towns in the south and west the leading regular physicians have such cards in the local papers.

The Use of Large Doses of Calomel in Pneumonia.

In an article in the *Medical Record* Dr. James McManus gives the result of treatment in sixty-two cases of pneumonia in which he used calomel with marked good effect. He called attention to the great varience in the statistics that have been compiled by some of the best observers.

There is as much difference in the opinions of medical men as to what the proper dose of calomel is, as there is in regard to the death-rate in pneumonia. An aged practitioner of St. Louis was wont to say: "I see no reason why anyone should die so long as the calomel holds out."

After reporting somewhat in detail three cases successfully treated with large doses of calomel, Dr. McManus continues: "Since then I have had fifty-nine cases of true croupons pneumonia at all ages and both sexes, have treated them all with calomel and all have recovered promptly except four."

One of the four was a man who was suffering from syphilis and chronic alcoholism and chronic diffuse nephritis. A second case died on the ninth day, sixteen hours after Dr. McManus first saw him. The third case was a man aged twenty-eight. He was called to see patient on third day; gave forty grains of calomel and had the satisfaction of seeing the temperature fall from 104° F. to 101½°; his respirations from 48 to 32; his pulse from 116 to 90 within twelve hours; but two days later the temperature again rose to 103°. This case ran into chronic pneumonia or fibroid phthisis resulting fatally. The fourth recovered, but fully three months passed before patient was well.

Dr. McManus' method is as follows: Give from thirty to sixty grains of calomel at the first dose. He believes that calomel is of no use after the fourth day of the disease, and at or near the crisis it does harm. He thinks chronic alcoholism a contra indication to its use.

Our readers will recall an article in the Review of July 28 on the Treatment of Pneumonia in which we call attention to Dr. Jamison's statistics of cases treated by several methods, which gave strong evidence of the efficacy of tartrate of antimony.

It is a great mistake to suppose that the discharge from a chronic suppurating middle ear should not be stopped. The patient is subjected to infinitely more danger by allowing the discharge to continue than he would be from checking it by the proper means. Many a patient has gone through life made miserable by a foul-smelling running-ear that could have been relieved by judicious treatment.

On another page will be found an excellent article on disease of the mastoid, a trouble that is frequently the result of neglect of suppurating ears.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

Upon another page of the Review is presented an advance extract from a paper to be read at the coming meeting of the Mississippi Valley Medical Association, Sept. 25 by Dr. Arch Dixon, of Henderson, Ky., ex-President of the Association. The case cited certainly demonstrated the value of the Senn method in diagnosticating the presence of intestinal obstruction. So far as I am aware to Dr. Dixon belongs the credit of originality in this particular point. In a private letter regarding the matter Dr. Dixon says:

"There cannot be a doubt in regard to it. I have demonstrated beyond question, by experiments on cats and dogs, that if strangulation exists it will show it. A ligature around any portion of the gut will stop the

gas and below the point of ligature there will be distention with exaggerated tympanites. Fecal impaction will not prevent the passage of gas. Volvulus, obstruction by bands, invagination in fact any obstruction can be demonstrated by it. The case in full will be reported at Mississippi Valley meeting."

* * *

From mountain and sea shore the doctors who have been fortunate enough to secure a resting away from the cares of practice are returning on every train. Of this number are Drs. Moses, Mudd, Tuholske, P. G. Robinson, Bond, Spencer, Porter, and Barnes, of St. Louis.

* * *

As a result of the commendable expose on the part of the *Druggists Circular*, of the fraudulent seductive and dangerous character of the so-called Scotch Oats Essence advertised freely in the secular press the company engaged in its manufacture called in all the old stock, and at once changed the preparation, issuing a "guarantee" with every bottle sold that it contained no morphine and agreeing to forfeit $10,000 if any were found in the new preparation. It is said that the sale has very materially decreased since the change, and that "jobbers" are sending in orders for the old supply without the "guarantee." The whole affair is a striking commentary upon the freedom with which conscienceless hucksters are permitted to engage in the sale of dangerous and demoralizing remedies and the systematic though reckless education of the multiplying masses in the direction of drugging and pernicious habits.

* * *

The last number of the *Medical Age* gives evidence that its talented, editor Dr. John J. Mulheron, has been all doubled up by indulgence in a diet which he should have avoided. Mulheron is a good man, but ought to have known better than to have dallied and hobnobbed with the cool, seductive, succulent tendril-bearing herb with watery juice, whose flower is monœcious and sometimes diœcious, the calyx of which is coherent with its ovary, and whose coralla is mostly monopetalous. A member of the numerous family known technically in general as the *Cucurbitaceæ* but which vulgarly and practically is termed the Q cumber, a plant so provocative of abdominal qualms, quavering, quaking, quivering and querulousness as to quicken the cautiousness of the most careless. For daring recklessness the most pronounced and audacious desperado in his palmiest days could not approach it. These sentiments regarding the danger of this member of the genus squash we know will be endorsed by all; but we are anxious to hear what became of the man who corralled such a plant in the month of August.

Mulheron is a good fellow, he runs a splendid journal, he has evidently a good brain, but he must not place too much confidence in his gastric arrangements: he has erred. While hoping for the best, we fear the worst. He is too young and altogether lovely to sacrifice himself in this way.

Detroit cannot afford to allow such disregard of the laws of health by its first citizens.

* * *

Dr. Dudley S. Reynolds, of Louisville, Ky., the President of the M. V. M. A., has been summering in the salubrious savannas of Michigan. He has indulged his imagination in the direction of fancying he was a fisherman, but if he is the fish don't know it. Recent advises from the warm working Wathen and all who know is to the effect that the only ones that got a bite in the neighborhood of Reynolds' trout stream were the mosquitoes. Those who know the able and genial worshiper at the shrine of Isaak Walton know that if he caught no fish it was not the fault of the fish, but they do know that he at least enjoyed his fragrant havana.

We are all looking forward to the coming of the doctor and his big meeting of the M. V. M. A.

* * *

Several articles have appeared in my exchanges confirming my own experience in the use of antifebrin in place of antipyrin, the

latest being from the pen of Dr. James M. Frazer of Milestown, Maryland, in the September number of the Philadelphia *Med. Bulletin.* He says:

"During the past year I have used both quite extensively, and can unhesitatingly say that antifebrine is decidedly the safer and more efficacious of the two. At the outset I used antipyrine exclusively, but it proved such an uncertain and unreliable agent in my hands, and in a number of cases caused such unpleasant and alarming symptoms, that I abandoned its use entirely in favor of antifebrine. I have been prescribing the latter almost every day during the past eight months, and have yet to find the first untoward symptom following its use. The dose is smaller than that of antipyrine, and, although its antipyretic effect is not so soon obtained, it continues for a much longer time, and is not followed by prostration. I have had most alarming collapse follow in several cases the administration of a single dose of antipyrine, but nothing of the kind has ever followed the use of antifebrine. In typhoid fever it is of inestimable value, and I have invariably found the greatest possible amelioration of all unfavorable symptoms immediately follow its use. The temperature is reduced from 2 to 2½ or 3 per cent., the pulse lessened in frequency and fulness, headache diminished, diarrhea improved, kidneys act better, and the skin, instead of being hot and dry, is moist and comparatively cool. Since November, 1887, I have had thirty-eight cases of typhoid, three or four being extremely bad, without a single death, and I can confidently assert that in every case the condition of the patient was much improved by the use of antifebrine. I find nothing so promptly and effectually relieves the obstinate and distressing vomiting so frequently present in remittent fever as antifebrine in five-grain doses. I have used it with good effect in a number of cases of migraine and facial neuralgia, and in a case of epilepsy in a girl of eighteen, which had withstood all the usual remedies and brought me almost to the verge of despair, it worked wonders, controlling the paroxysms as nothing else had done. In this case I have continued its use for some time, giving five grains three times a day, and the paroxysms were gradually lessened in frequency and severity. When I began its use the paroxysms came on every afternoon, and continued almost without intermission until the following morning; but it is now two months since the last attack, and my patient is rapidly gaining in health and strength and feels better than for many months."

This is in complete correspondence with my own results save and except the epilepsy —I have not tried the remedy in this direction.

In measles I have had great satisfaction in the use of the drug, as it reduces temperature nicely, tranquillizes the irritated skin, and relieves the catarrhal condition of all the mucous membranes.

* * *

The September number closes volume seventh of the *New England Med. Monthly*, one of the best of the really good journals which comes to our table. Dr. Wm. C. Wile, its founder, editor and proprietor, has reason to be proud of his journal and the record he has made as a skilful and able journalist.

He and his journal have ever kept pace with the marching column of worthy workers in the great Medical Army battling for science and humanity, and it is needless to say that though their years should be as Methuselah's, the record will never be changed except for the better.

* * *

At the coming meeting of the Mississippi Valley Medical Association, Dr. Wm. A. Hammond, the eminent neurologist and able author will present a paper upon his favorite topic.

That it will be a good paper goes without saying. This is another evidence of the wide spread interest being taken in this annual meeting of the doctors of the west and south by representative men of our country.

CORRESPONDENCE.

PARIS LETTER.

At the Congres de Chirurgie Francaise, which opened on March 12, amongst the most interesting communications were the following:

M. Ollier (of Lyon) stated that with the use of antiseptics,resection of the wrist is advisable in cases of anchylosis. M. Ollier has performed it very successfully many times, and has obtained mobility of the wrist and perfect solidity. The fingers can be moved in a radius of from 40° to 45°, which is quite sufficient for ordinary purposes.

M. Demons (of Bordeaux) believes that certain cancers of the larynx can be cured by the total ablation of that organ. M. Demons has twice extirpated the larynx. The first patient was a man of 45 years, who had had syphilis. Epithelioma had begun in the epiglottis, and successively invaded the larynx and base of the tongue. The ganglia were affected. A radical operation was performed. For nine months the patient was quite well. At the end of that time cancer reappeared at the base of the tongue.

The second case was a man of 57, who had also had syphilis, and a long standing throat trouble. The larynx was extirpated. The larynx was extirpated. At the end of a month the patient was cured. The disease had not reappeared. The patient cannot talk, but he whispers so that he can be understood.

M. Chauvel (of Val-de-Grace) gave the results of his observations on the effects of small projectiles penetrating the visceral cavities. He believes that all wounds of the abdomen, resulting in lesions of the viscera, should be treated by laparotomy, as infection arises from the extravasation of stomachal matters, the bile or urine.

M. Thiriar (of Brussels) remarked that the three patients on whom he had performed cholecystectomy have been quite well ever since. He performed the same operation on a woman of 39 years of age, who had been first attacked in 1881 by hepatic colic followed by vomiting. The operation was followed only by slight vomiting. The ablation of the gall bladder is not a dangerous operation. From the results of M. Thiriar's operations, it would seem that cholecystectomy is preferable to cholecystotomy.

M. Socin (of Basle) made some observations on the radical cure of hernia by operation.

1. Operation should be performed except in cases where the intestine cannot or must not be reduced.

2. The radical cure of non strangulated hernia is indicated (*a*) in young patients under twenty years of age, when the classic treatment of the truss does not succeed in reducing the hernia completely and permanently; (*b*) in adults when the truss does not reduce the hernia without pain.

3. There is more chance of success when the patient is young, or the hernia of more recent date.

4. The existence of double hernia in the patient, or of hernia in his family, diminishes the chance of success.

5. Corporal labor does not provoke a relapse.

6. It is unnecessary, often injurious, to wear a truss after the operation.

7. There is no danger except in the case of very old patients, an enormous hernial tumor, or when the tegument is ulcerate

8. The operation consists of the ablation of the cyst above the neck. It is not often necessary to have recourse to suture.

9. In cases of congenital hernia, the dissection of the cyst is more difficult. The lower part must be preserved to form a new vaginal coat for the testicle.

10. In cases of ectopia with atrophy of the glandular tissue the testicle must be removed with the cyst.

M. Thiriar has operated in twenty-six cases of hernia, in twelve of which there was strangulation. All the results were good except in one case, that of an old man, 64 years old, of intemperate habits, who died sixteen days after the operation from encephalitis.

M. M. A. Routier, Jules Boeckel and Paul

Segond also reported successful operations.

M. Lucas Championniere has operated eighty-one times in cases of hernia with excellent results. He believes that operation is indicated in slight cases. Pulmonary congestion is more to be feared in old patients and in severe cases.

M. LeBec obtained the radical cure of hernia of the ilio-cecal appendix, which was adherent and suppurating. The patient, a man æt. 59, appeared to be suffering from funicular tuberculosis. He presented a fistula in the middle part of the scrotum, which discharged large quantities of pus. M. Le Bec decided to operate. He discovered that the ileo-cecal appendix adhered to the cyst, was very much inflamed, and that fistulous abscess had resulted. The operation including the resection of the appendix, was successful; at the end of three weeks the patient was quite cured. In five months he was able to work.

M. Guyon observed that the diagnosis of tuberculosis of the bladder is quite easy, and can be determined at an early stage of the disease by opening the bladder. M. Guyon operated on a young man who was attacked by an apparently incurable cystitis. The patient suffered pain that not even morphine could soothe. M. Guyon opened the bladder and found the mucous membrane red and granulated. He dilated the neck of the bladder, and applied iodoformed oil to the mucous, and powdered the inside of the bladder with iodoform. He inserted drainage tubes, and dressed the wound with iodoform. For three years the patient has been quite well; there are neither pus nor bacilli in the urine, nor any trace of genital lesion.

M. Monod presented a patient, the flexor of whose thumb had been cut. M. Monod inserted the tendon of a rabbit between the extremities and sutured it. The patient can bend the thumb perfectly.

M. Schwartz (of Paria) reported an erectile tumor of the the face which had been cured by electrolysis. The treatment was begun in July, 1885, and continued until quite lately.

M. Redard explained the manner of making orthopedic jackets of plaster, gutta-percha, felt and silicate of potass.

M. Bilhaut (of Paris) remarked that in cases of scoliosis it should be ascertained in the beginning whether the legs are of unequal length. If it be the case, the scoliosis may be attributed to that cause. The immediate treatment should be the use of soles in and outside the boots to establish equilibrium. The patients should also be treated by massage, gymnastics with special exercises for the development of the shorter limb, electricity and hydrotherapy.

At a recent meeting of the Societe de Chirurgie, MM. Brissaud, Quenu and Reclus discussed cystic diseases of the breasts, which they believe to be special affections of the glandular tissues, characterized by numerous and disseminated cysts without positive tumors. This opinion is founded upon the fact that, after puncture and evacuation of the cyst, the sound glands only remain. Yet these clinical characteristics belong to other affections, cystic and otherwise, such as complicated fibroma, glandular tumors and certain kinds of inflammatory tumors. (Phocas, Tillaud.) The lesions considered from an anatomical point of view, as acinous, intracanalicular epithelioma, by MM. Brissaud and Reclus, are declared epithelial cystic cirrhosis by MM. Quenu and Kermisson, who are of opinion that a distinction ought to be made between intra-canalicular epithelioma and cystic diseases—from a therapeutic point of view same uncertainties. In a case of epithelioma, ablation of both breasts is indicated, yet M. Reclus owns that in many cases of cystic affections, operations are avoidable. This opinion is shared by MM. Terrier, Trelat, Verneuil and others. M. Terrier even said he no longer operated in cases where he had heretofore advocated ablation. It might consequently be wise until histologists and clinicians agree on that subject, to follow M. Trelat's careful mode of treatment, consisting in the puncture of all tumors belonging to the cystic order and evacuation of the cyst. If that takes away all indurated area, ablation is abstained from; if, on the contrary, tumors or indurations remain, a neoplasma is evident, and an operation becomes necessary.

Dr. Frochard writes in the *Gazette des Hopitaux* of March 1, on a powerful diuretic, orthosyphon stamineus.

This plant of the family of Labiata is indigenous to the island of Java, where it has been employed for many years in the treatment of affections of the kidneys and the bladder, especially in cases of gravel and nephritic colics.

Dr. Frochard especially recommends it under the form of Java tea. The leaves of the orthosyphon stamineus are dried by a particular process, and make a nice black tea. For patients who drink but little, Dr. Frochard prescribes at the same time Java pills, containg extract and powder of orthosyphon stamineus aa 10 centigrammes. Amongst the patients benefited by this treatment Dr. Frochard records the following:

I. H., 60 years of age, had passed gravel with the urine for a year. Java tea in infusion 5 grammes per litre a day. By degrees the urine became clear and abundant.

II. F. F.; 52 years old. For six months had suffered every three weeks from nephritic colics, followed by the expulsion of voluminous calculi. Java tea, as in the first case, was prescribed. In two months he had only one access. For five months since he has not suffered at all.

III. M., 46 years of age. Ascites since 1883 from cirrhosis of the liver. For a mouth he took Java tea, first, 5 grammes, and then 10 grammes in a liter of water. The abdomen diminished in size several centimeters weekly. That this medicament is perfectly harmless is proved by the fact that no accident contra-indicated its use. Dr. Frochard has only used it under two authentic forms, direct from the importer, M. Perinelle.

M. Charles Fere publishes in the "Compte Rendu des Seances de la Societe de Biologie," of Jan. 20, 1888, some interesting remarks on the electricity of the human body. Certain individuals become charged with electricity in dry cold weather, especially in a hard frost. Sparks or flashes of light escape especially from the hair when combed with a dry crackling sound.

Occasionally this phenomenon appears with much more intensity.

Mussey and Hosford record the case of a woman, thirty years old, of a very nervous temperament, who during an aurora borealis was suddenly charged with electricity, the presence of which was manifested by sparks whenever the woman passed her fingers over the face of her brother. This phenomenon lasted two months and a half.

Other cases have been also observed, but none of such striking interest as one that came under the notice of M. Fere several years ago.

Madame X. belongs to a neuropathic family, and amongst other troubles, presented a nervous anorexia which had lasted since her childhood; she had (at least temporarily) ovarian hyperesthesia on the left side, and sensitive-sensorial anesthesia on the same side.

When she was about fifteen she noticed crepitation in her hair in frosty weather, and in the dark, flashes of light.

At the age of 27 this electricity manifested itself with greater intensity. Madame X's fingers attracted light bodies, such as fragments of paper, ribbon, etc. Her hair not only gave forth sparks, but became rebellious and difficult to keep smooth. When her clothes touched her body a luminous crepitation was produced, her clothes adhered to her body. The luminous crepitation increases by friction, or by passing the comb repeatedly through her hair.

Under the influence of moral emotions also the electric tension increases, and of course the manifestation. After Madame X. had been listening to music, the crepitation was highly exaggerated, and a disagreeable pricking sensation, especially in the legs, was felt by her. In 1884, Madame X had an edematous infiltration in the legs; her skin was so dry that it chapped at the least exposure to cold, even on the parts of the legs not affected by the edema. M. Fere ordered the patient to wear silk clothes, and powder her skin with lycopodium in order to moderate the electric phenomena; he also prescribed daily baths of static electricity.

Since this treatment her general health is better in spite of the persistence of the electrical phenomena.

Madame X. has a son, eleven years of age, who for three years has suffered from nervous anorexia, hysterical phenomena, sensibility of the left testicle, left hemi anesthesia and left hemi-amyosthesia, rachidian pains, hyperesthesia of the scalp, dyesthesia in the sole of the foot; for the last few months he has also presented electric phenomena under the same circumstances as his mother.

Examined with the aid of a hygrometer, both presented extreme dryness of the skin, especially on the left side.

The electrometer showed that Madame X. produced a slight deviation to the right, which was increased when the left hand was in contact with the apparatus 175 to 100 volts. After friction of the hands, both patients caused a deviation to the right, the mother 050 volts, and the son 500 volts.

Under the influence of peripheral stimulation, a deviation to the right (125 volts) was caused by Madame X. when she looked through a blue glass. The deviation reached 700 volts when a flask of ether was held near the patient.

M. Fere thinks that the existence of these electric phenomena may give the key to the phenomena of transfer, polarization, electric sensibility and certain actions at a distance.

M. Wurtz has been engaged in researches in order to determine the presence of volatile bases in the blood and in exhaled air. To collect and isolate the volatile bases which pass from the blood into the air exhaled, M. Wurtz stirred among it a solution of oxalic acid at 1 per cent, using a special apparatus. This apparatus is so constructed as to avoid error arising from the projection of saliva or solid particles. When a sufficient number of cubic meters of air has passed into the apparatus, the solution of oxalic acid is saturated with pure carbonate of lime, as free from chloride or sulphate as the solution is neutralized by adding a drop or two of lime water, which immediately precipitates the oxalic acid. Then filter; neutralize exactly by a trace of chlorhydric acid; evaporate in vacuo.

Various chlorhydrates are thus obtained, amongst which, chlorhydrate of ammonia, which predominates, and a certain proportion of an organic base determined by M. Wurtz by the following reagents: precipitated by Bouchardat's reagent, also by double ioduret of potassium and of mercury.

Formation of a soluble chloroplatinate, crystallizing in short needles. This chloroplatinate seemed to have the same crystalline form as that of one of the bases of the blood isolated by M. Wurtz' soluble chlora-aurate.

M. Wurtz was not able to analyze or to experiment on the physiological effects, which he intends to do on future occasions.

M. Bouchard indicates the following as an excellent treatment in cases of typhlitis: Soothe pain by a morphine injection, if very sharp at first; if not, a thick layer of Neapolitan ointment with belladonna, covered over by a large, very hot poultice. Aseptic rectal injections twice a day, with at least one liter of water, to which is added 5 grammes of borate of soda, and two or three teaspoonfuls of tincture of benzoin and camphorated alcohol mixed. Injections must be given very slowly. Absolute rest is indispensable. No purgatives, or if any, only those of the mildest kind, such as magnesia in water, etc.; the lightest kind of diet, one that will leave no deposit for intestinal fermentation; milk and alkaline water taken in small quantities at a time; later on, milk thickened with yolks of eggs. This treatment will generally restore intestinal asepsia. If at the end of a fortnight there is thickness round the cecum, a small blister should be applied.

M. Pagot counsels in cases of eclampsia to be careful not to produce premature labor. When the access begins during labor to have recourse to medical treatment, and to do nothing until the orifice be dilated.

When the orifice is dilated, the uterus should be relieved of its contents as soon as possible without violence.

The medical treatment must be continued after delivery.

There is greater chance that death may ensue when the pains are violent and occur very frequently.

Concordia, Kan., Sept., 7, 1888.

EDITOR REVIEW.—In a brief article in the November number of the *Can. Pract.* I referred to the treatment of comedones. While the therapeutic agents work admirably, I think my directions were too vague. I therefore offer the following:

℞ Ether sulphurici, - - ℥j
Acidi boracici, - - - ʒj
Sodii bicarb. or
Ammon. carb., - - ʒij
Aquæ ad., - ℥iv to ℥vi

Sig. Sponge face for an hour. Then press out grubs with finger and thumb-nails, or with watch key. Repeat this operation every three or four days for one or two weeks. At the same time apply glycerine to the face at bed time. If there is anemia present give iron tonic with glycerine. Encourage cool baths twice or three times a week, and plenty of out door exercise.

J. H. McCASEY, M. D.

Quincy, Ill.

EDITOR REVIEW.—I enclose the following report of a case of hair-pin in uterus and its removal. July 6, 1888, Miss Dora O., waiter, æt. 18 years, called at my office and stated "that she had put a hair-pin into her womb, and it had slipped out of her fingers," and still remained in the cavity of the womb.

It being then 9 o'clock P. M. I persuaded her to call again in the morning and, after locating the pain with sound, we succeeded, after many failures, in grasping the points of the pin with a pair of uterine dressing forceps and extracting it.

After three or four days of fever the young woman was up and around, but hemorrhage lasted for two weeks. Miss D. stated she introduced the pin because her menstrual flow had been scanty always (but she had never missed a month). Notwithstanding the depth of the uterus was 3½ inches, and the os and cervix softened and dilatable, admitting a uterine dressing forceps readily.

Will some more experienced practitioner tell us how common this practice harpooning (hair-pinning) the uterus is in his region. Our experience is confined to six years, but this is the first case of a hair-pin in the cavity of the uterus. I have seen reported cases of hair-pin in the urethra, bladder, anus and vagina, but never heard of a young woman, unaided, succeeding in introducing a blunt loop end of a hair-pin into her uterus. Who has met with similar cases?

JAMES Y. LEWIS.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting Friday, June 8, 1888, DR. DA COSTA IN THE CHAIR.

DR. C. B. PENROSE reported two cases of "Extra Uterine Pregnancy; Recovery." M. C., aged 32, had had four children the last seven years, and two miscarriages, the last eleven year. She was treated for syphilis and uterine retroversion, in 1883. She applied for treatment again on Feb. 6, 1888. She had been bleeding frequently from the vagina for thirteen days, and had suffered with continuous sharp pain in the left side for the same length of time. The pain and bleeding had started suddenly after heavy lifting. There were no signs of pregnancy. Vaginal examination revealed a small retroverted uterus, and a tender cystic mass about the size of a duck's egg lying to the left of the fundus. Three days later this mass was again examined and found to have increased to the size of a largeorange. Laparotomy was performed Feb. 10, 1888.

The left tube was found distended at the outer half by a cyst the size of an orange. About three ounces of recent blood clot was found in Douglas' pouch. The cyst was very friable and easily ruptured during the removal, and a considerable quantity of old blood clot escaped into the peritoneal cavity.

The left ovary was independent of the cyst in the left tube. The right ovary was cystic, and was also removed along with the right tube.

The convalescence of this woman was uneventful. She has menstruated naturally since the operation. Three months after the operation her breasts became enlarged and painful,and she was able to squeeze milk from them. This secretion of milk lasted for two weeks, until stopped by belladonna ointment. These mammary symptoms were the only signs of pregnancy exhibited before or after the operation, and I wish to ask the members of the society whether it is not an unusual occurrence for this secretion of milk to take place so long after the removal of the product of conception.

E. B., aged 28, has had four children, the last one a year ago. She had not menstruated since her last labor, until two months before she presented herself for treatment. She then began to bleed profusely,and to suffer with great pain in the left side. For the last few weeks the bleeding had been accompanied by the discharge of shreds from the vagina.

Vaginal examination revealed a large cystic mass to the right of the uterus.

Laparotomy was performed May 22, 1888, to the right and posterior to the uterus was a blood cyst about the size of an orange. The cyst was firmly adherent to the posterior surface of the uterus and to the right ovary and tube, and the right tube opened into the cyst.

As you will see from the specimen, this cannot be called a tubal pregnancy, as the first case where the tube is distended by a cyst containing the product of conception. In the second case the tube opens into this cyst. In each case there was disease of the opposite tube and ovary, the ovary being in each instance as large as a good sized egg.

The second patient is now out of bed.

DISCUSSION.

DR. M. O'HARA.—Dr. Penrose asks with reference to the presence of milk in the first case. I have seen one case in which milk never appeared. The mother was delivered at full term, and the child died. I do not think belladonna has any effect in arresting the secretion of milk.

DR. WILLIAM GOODELL said that anything producing irritation of the genito-urinary organs may cause the appearance of milk in the breasts. The presence of fibroid tumor may even do so.

DR. WM. L. TAYLOR exhibited specimen from a case of vaginal hysterectomy for procedentia with epithelioma of the cervix uteri and vagina.

The patient had several years prior to the appearance of the epithelioma procedentia with a gradual thickening of the vagina. The principal symptoms complained of were due to the occlusion of the vagina and rectum. The operation was performed to relieve these symptoms. The patient died three days after the operation.

The specimen is interesting from the fact that it shows occlusion of the cervical canal by the epitheliomatous matter. To the right side there was an opening which I thought to be the external os through which the sound entered 3½ inches. At the operation it was found that the sound had entered the diseased mass, the uterus being in the median line. The patient's death was due largely to shock.

DR. JOSEPH HOFFMAN reported a case of Perityphlitic Abscess originating in Appendix, exhibiting the specimens.

The patient, Mrs. B., married, with three children. When first seen she had a pulse of 128 and a correspondingly high temperature, and unable to stir in bed without extreme pain. Careful questioning elicited the information only that eight days previous she had slipped from a chair, causing severe pain thereby in the right iliac region. This continued up to the time at which was called in when she was compelled to take her bed.

The duration of her trouble, according to her own statement was limited to a little more than a week, though in this connection, she mentioned the occurrence previous to menstruation of an ill smelling vaginal discharged. Examinatiou per vaginum dis-

covered the presence of a tumor to the right, along side the uterus, the touch of which gave her much pain. The rectum was empty' she having had a dysenteric attack the previous day. External examination was so painful that I did not attempt. The pain in her back and right leg was intense. I decided that operation was necessary and called in Dr. Joseph Price for consultation, but examining under ether was somewhat uncertain as to the condition.

Operation being decided upon, an opening was made in the median line and an exploration made.

The cecal portion of the intestine was found matted down, and was freed after much difficulty. The appendix was almost completely buried in pelvic tissue, and the temptation was great to tie it off piece by piece, though it was afterward enucleated by persistent effort. The cecal portion of the bowel was almost gangrenous in spots, and nearly ulcerated through.

Surrounding this portion was a quantity of stinking pus, about two ounces. The pelvis was carefully washed out, no antiseptics being used and a drainage tube introduced into the cul-de-sac, and a rubber tube led from the fossa through the incision which was closed by sever deep and superfiical sutures. Nothing was done with the bowel save to cleanse it. The bowels were at first moved by enemata, and after a quantity of scybala was discharged, calomel in one-sixth grains was given to clean the tongue and relieve bilious vomiting.

The patient made an uninterrupted recovery, all the stitches being removed as well as the tubes by about the tenth day. The patient now at the 24th day is sitting up entirely free from pain.

A curious feature of the case is that after the removal of the offending appendix the patient in three days remarked she had never been so free from pain for two years, then going on to give exact history of her trouble all of which pointed to perityphlitis. Her pain had become so much a part of her that did not seem to recognize it as foreign.

The points principally to which attention may be called are the closing of the incision. and the location of the same. Although central drainage was perfect, and though sutured, it promptly healed, showing I think, that dogma both as to location and to allowing the incision to remain open is not wise, as in this case the central incision enabled us to remove at the same time an ovarian hematoma, otherwise out of reach, and as drainage was perfectly obtained. These points for such an operation are of special consideration.

As to some points in the diagnosis I shall not refer leaving them to Dr. Price who so kindly worked with me. I would only venture the opinion, that here, as in all other pelvic surgical disease absolute diagnosis is very often impossible.

DISCUSSION.

DR. CHAS. B. PENROSE.—I would ask whether or not the pus was encysted around the cecum or free in the peritoneal cavity?

DR. HOFFMAN said the pus became evident only on raising the cecum. Dr. Penrose said the cases in which it is proper to make the incision over the cæcum are those in which there is an encysted abscess around the cecum or the appendix. If there is free pus in the peritoneal cavity a median incision would probably be better.

DR. GOODELL said that he on several occasions had been obliged to sever the appendix from its attachment in operations for the removal of ovarian tumors, and the operation has seemed to have no bad effect. It seemed to be a useless appendage. He did not know that modern research had thrown any light upon its use. In removing the appendix he simply ligated it with silk and cut it off carefully squeezing the end so that no fecal matter should remain.

DR. JOS. PRICE said a few years ago ovariotomists regarded the appendix as sacred, as something that should never be touched. The case reported is one of great interest. The woman had complained for two years, her trouble evidently beginning in an appendicitis. The cecum was so much thickened and so low down in the pelvis as

to suggest tubal disease. She, however, had a good history and several healthy children, the youngest two years of age. The presence of the tortuous body on the right side determined the choice of the median incision. On opening the abdomen the small hematoma was first removed. Afterward the cecum was dealt with. The course of the case was all that could be desired.

Dr. J. G. Morton teaches lateral incision and non closure. As to the first, circumstances should influence the choice. As to the second, he did not believe in it at all. We are too far advanced in surgery for such procedure.

Dr. J. V. Kelley said that the general practitioner met more cases of perityphlitis than the specialist, and was disappointed in not hearing more about the history of the present case. He was also surprised that this case occurred in a woman, the disease being much more common in men. The existence of pain for a year or two would be against the existence of perityphlitic abscess over that time. Perityphlitic abscess is an acute disorder and runs an acute course.

Dr. J. Price does not believe the view that perityphitis is necessarily acute. He knew of a case of Dr. J. G. Morton's where the operation for the trouble was repeated at the end of a year, and the appendix removed. Here the trouble was recurrent, gradually growing worse and necessitating the second operation.

Dr. M. O'Hara cited in substantiation of Dr. Price's view the case of his own child, in which inside of 11 months, there were two or three attacks. For four or five months he was in perfect health although the condition (appendicitis) existed. Another attack followed, and death from septic peritonitis resulted.

Dr. M. Price believed that the peritoneum can accommodate large quantities of pus for a time just as abscess in other parts of the body can be tolerated.

Dr. William Goodell thought that perityphlitis like any other form of inflammation may exist for years. He thought Dr. Kelly narrowed the question down too far.

Dr. Hoffman held it a mistake to believe inflammation cannot be present in these cases without the presence of a well-defined tumor. It is easy to make a diagnosis after operation, as is too often done. Pages could have been written after this operation on the diagnosis of perityphlitis, but before operation it was impossible, because there was no history. There was nothing but the inflammation of the appendix to cause the symptoms of which she complained.

Dr. J. V. Kelley thought no one would diagnose perityphlitic abscess without the presence of a tumor. The pericecal tumors undergo resolution spontaneously and abscess as do not form.

Dr. J. B. Deaver drew a distinction between appendicitis and perityphlitis and believed very few cases of inflammation about the appendix undergo resolution.

Dr. G. M. Shoemaker cited a case which he thought proved a termination by resolution in one such case.

Dr. William Goodell presented a specimen of oviducts and ovaries, diseased by gonorrheal infection.

The ovaries were enlarged by cystic and interstitial degeneration. The meso salpinx was wholly absorbed, and the fimbriated extremity of the oviducts were enlarged into a bunch of cysts, and the adhesions to the broad ligament were firm.

History as to the infection was a clear one. The husband had the gleet, and directly after marriage the wife's health began to fail from groin pain and reflex neuroses of a high grade. By vaginal examination the concurrent implication of oviducts and ovaries was very manifest, as both organs were readily differentiated. The patient did well.

Dr. Goodell also exhibited a solid ovarian tumor of suspected malignancy. The girl from whom he removed it was only 16 years old. It had grown very rapidly since it was first discovered a year and a half ago. It weighed six pounds and for its removal, needed an incision of nearly twelve inches. The pedicle was a very broad one. Some ascitic fluid was present.

This patient was also doing well.

He further exhibited a fibroid womb weighing 18 pounds. A rapid accumulation of a large amount of ascitic fluid rendered the operation imperative. The patient had on account of pressure upon the diaphragm to be anesthetized in the sitting posture, and it was only after removal of the fluid, that she could be safely placed in the recumbent posture. The incision needed for the removal of the tumor was a very long one. The pedicle was treated extra peritoneally by Kosberle's wire clamp. Thus far all the symptoms are favorable, but as only 48 hours have elapsed since the operation, the patient is not yet out of danger.

DISCUSSION.

DR J. PRICE was glad to hear Dr. Goodell say operation is the only treatment such cases. He never operates simply for relief of nervous symptoms, but wants actual disease.

DR. C. B. PENROSE exhibited specimens removed from a patient who had been treated several months in 1884 for chronic cellulitis by the usual applications. She was married and had two children, the last five years ago. In 1886 she returned for treatment. Diagnosis cyst of left ovary and tube. She was again treated by the common applications. In 1888, one week ago, she returned for treatment and pyosalpinx was diagnosed. The tubes and ovaries were found down in the hollow of the sacrum. The left ovary contained one dram of purulent material.

SELECTIONS.

OPERATIONS ON THE MASTOID PROCESS.

BY P. M'BRIDE, M.D., F.R.C.P.E., F.R.S.E.
Surgeon to the Ear and Throat Department, Edinburgh Royal Infirmary.

It would serve no good purpose to discuss the history of operative attacks upon the mastoid region, which is, no doubt, familiar to all those present; nor do I propose to consider the pathology of mastoid inflammation further than the strictly practical aspect of the subject requires.

In many modern works on ear disease, we find a tendency to classify inflammatory conditions of the mastoid under two heading, namely:

(1) Periostitis confined to the outer surface:

(2) Ostitis within the pneumatic space or spaces.

Pathologically, no doubt this subdivision is justified; but it seems open to doubt whether, from a clinical point of view, it can be maintained. It is true that those rare cases of primary periostitis, unassociated with any suppurative process within the ear, and of inflammation the result of disease confined to the external meatus, can be diagnosed clinically as well as pathologically to be due to inflammation confined to the periosteum.

In the comparatively common cases, however, in which acute or chronic suppuration of the tympanun spreads to the region behind the ear, I hold that we are only entitled to speak of mastoid inflammation, and that usually we cannot further define its limits. I venture to doubt, however, whether the lesion is, in such instances, often confined to the periosteum, or even to the layer of bone immediately beneath it.

With these preliminaries disposed of, I should like to ask and attempt to answer the question: "Of what therapeutic value is incision of the soft parts down to the bone before pus has formed in cases of acute or chronic middle-ear suppuration complicated by mastoid inflammation?" It seems to me that in most cases—more especially in instances of mastoid inflammation due to examples of chronic middle-ear suppuration—this operation is useful (1) as a palliative of pain; (2) as being of the nature of an exploration of the condition of the outer layer of bone. In mastoid inflammation arising in acute tympanic inflammation where the discharge is still sweet it may possibly do more, for here the danger to be feared is extension of inflammation to the intra-cranial structures, and the deple

tion resulting from the incision is undoubtedly useful; but the same result can be arrived at by free leeching. On the other hand, Wilde's incision can do little for a patient whose mastoid antrum and cells are filled with granulations, carious *debris*, decomposing pus, and epithelium. When I make an incision behind the auricle, then the object I have in view is; (1) to palliate pain; (2) to let out pus if it be present; (3) to save the outer layer of the mastoid process from injury; (4) to explore, that is to find out whether there is any fistulous opening which would indicate or facilitate perforation of the bone. I an strongly of opinion that Wilde's incision is not a life saving operation, and am therefore inclined to delay its application longer than, for example, Roosa, who writes: "It is only when the symptoms are not severe, although positively existing, that a little delay, that is of a few hours, may be admissible for the use of leeches, etc." Cold applications, leeching, iodine, the injection of weak boracic lotion through the Eustachian catheter, and instillation of a solvent solution of soda into the meatus in chronic cases, should certainly have a trial before the more active remedy is resorted to. It may not be amiss to refer very briefly to two points in connection with the treatment of suppuration of the middle ear, with perforation of the drum membrane, namely (1) the use of small tubes introduced through a perforated drum membrane, for the purpose of breaking up inspissated secretion by means of a stream of fluid; (2) the use of powders as a cause of mastoid disease. With regard to the first; I cannot say that the use of Hartmann's apparatus has, in my hands, proved serviceable. When the perforation is small it is difficult to use, and when, on the other hand, the orifice is large, it has seemed to me that the constantly applied instillations of an alkaline solvent promise better results.

With regard to the question of insufflated powders as a cause of pus retention—a subject which has recently given rise to somewhat acrimonious discussion in German otological circles—I do not hesitate to say that I am more chary now than formerly of recommending this treatment in cases where the perforation is small, for I have met with more than one example where its use was followed by mastoid inflammation. I may fairly be met with the reply that *post hoc* proves nothing; but; with regard to these cases, I have never been able to divest myself, rightly or wrongly, of the idea that, while it was certainly *post* it was also *propter insufflationem.*

Before concluding my remarks on Wilde's incision, I should like it to be understood that in a case of mastoid inflammation, after a delay varying from two days to a week, and after other remedies have failed; I have no hesitation in adopting this method of treatment; but I always do so with the idea of perforating the bone itself, should such an almost immediate amelioration of symptoms set in. I am, therefore, at one with Politzer when he advises the incision to be made near the attachment of the auricle, so that it may be utilized for the more serious proceeding, should this be found necessary.

With regard to the operation of opening into the mastoid process, I have, of course, like most of those present, studied the most recent writings on the subject in the works of Schwartze, Politzer, Gruber, and Bezold, but it seems to me that in a paper read at a meetting, such as this one ought to avoid, so far as possible, literary references, and adhere to personal observation. I may, however, to avoid misconception, at once state that of those cases in which mastoid abcesses have burst through the inner surface of the cortex and led to burrowing of pus beneath the muscles of the neck I have had no experience.

The indications for opening the mastoid antrum seem to me to be present in almost every case of chronic middle-ear suppuration (excepting in cases of perforation of Shrepnell's membrane), in which we have had head symptoms threatened, and in which milder measures have failed, the urgency of the indication being directly proportionate to the danger of the patient. In both acute and

chronic cases the operation should be performed when tension cannot be relieved by other means, and when to allow it to continue would be a grave risk.

Some time since I had occasion to collect a number of cases in which middle ear suppuration had proved fatal, owing to bad complications, and I found that in the great majority both the tympanic and mastoid antra were involved in the suppurative process; hence my belief that opening the mastoid should not be long delayed when danger threatens, excepting, as already stated, in cases in which Shrepnell's membrane is perforated, while the lower part of the tympanic cavity does not show evidence of disease. In such cases, perhaps, under certain circumstances; and assuming, as is often the case; that the patient is in no condition to brook the delay, etc., of removing the malleus and membrane, it may be better to proceed at once to open the cranial cavity just above and in front of the osseous meatus, provided we have fair grounds for suspecting that there is already a cerebral abscess. Cases of chronic suppuration threatening to end fatally are often brought to hospital when matters have considerably developed, and then of course the surgeon must be guided by general indications, whether he shall open the mastoid yr cranial cavity, or whether indeed any operation is justifiable, in patients suffering from chronic suppuration who can be watched. I am inclined to think that opening the mastoid antrum should be performed when when there is great pain, facial paralysis, with or without rigors, optic neuritis and symptoms of meningeal irritation, whether or not there be tenderness over the mastoid, and I would further venture to suggest that in such cases the most important symptom is pain, and that the indication is commonly urgent, exactly in proportion to its severity. It may be argued that, if we have distinct evidence of involvement of the labyrinth, or of caries of the inner tympanic wall, the surgical proceeding proposed is likely to be useless; but observe that even the most probable cause of these complications is tension *plus* putrefaction, and by no other known method can we get such perfect drainage and irrigation of the tympanun as by opening the antrum. Besides, it must always be remembered that I only advocate the operation after the other known means have been tried and found wanting. There are certain cases of obstinate otorrhea associated with the presence of polypoid growths which yield in my experience only to perforation of the mastoid; but I must admit that, so far, I have always hesitated to perform or recommend the major operation until pain and threatened head symptoms demanded it urgently. The most characteristic of such cases are those where a polypoid growth springs from its posterior wall of the meatus. Such a tumor will almost invariably be found to have an aperture in its centre, and if a bent probe be introduced, it passes towards the mastoid process, and bare bone may be felt. Sometimes however an apparently true aural polypus keeps recurring, in spite of removedand in spite of caustics, only disappearing after the antrum has been opened.

In most of such cases, no doubt it is the free drainage that removes the cause of these growths, which are probably the result of a mechanical irritant. It has happened to me, however, to operate upon a densely sclerosed mastoid, of ivory-like hardness, in a patient who seemed to be already suffering from meningitis. This patient had been for some time under my observation, on account of chronic middle ear suppuration, associated with which was a polypoid growth from the posterior wall of the meatus, perforated in its center by a canal leading toward the mastoid. I have, unfortunately, no notes and write from memory; to the best of my recollection, however, there was no dead bone to be felt with the probe, and the case did well for a time, and then disappeared from treatment. After an interval, however, I was asked by Dr. Carmichael to see her, and both he and I agreed that the pain, mastoid swelling, delirium, etc., made almost any attempt at relief justifiable. The meatus was now filled with a polypoid mass, which was in great

part removed; this failing to give relief, the mastoid was opened. I made the incision behind the ear, close to the auricle, and, to get more ready access, made, contrary to my custom, another at right angles to its upper extremity. It is needless to go over the steps of the operation. Suffice it to say that, after chiselling parallel to the meatus through bone of ivory-like structure for nearly an inch, the operation was suddenly cut short by the wound filling again and again with dark venous blood. I had evidently opened at the lateral sinus, and therefore abandoned further attempts to drain the tympanum. The hemorrhage was easily checked by lint dipped in carbolic oil, and did not recur to any appreciable extent after removing the plug, which was done, if I remember right, about eight hours after the operation. Syringing antiseptic fluids into the wound produced giddiness, but no flow from the meatus, neither could any fluid injected into the meatus be made to flow from the wound. The patient, however, did well, although after her ear symptoms were relieved, she contracted a pneumonia—whether or not connected with a clot in the lateral sinus, Dr. Carmichael and I were unable to determine. The special points of interest, however, from an otological point of view, were:

1. That the case did well without any drainage from, or even opening at, the mastoid antrum.

2. The granulation, or rather so much of it as remained, disappeared never to recur again.

As to the first point, it may be said that there never was any retained pus in the mastoid antrum; but the great swelling and infiltration of the post auricular tissues, the tenderness and threatened meningitis, negatived this view; so did the presence of the granulation and fistula leading toward the mastoid from the meatus. I regret that owing to the necessity for an immediate operation at the patient's home, no ophthalmoscopic examination was made, although we are now aware that many cases recover in which the ophthalmoscope has shown changes in the disc.

With regard to the spontaneous disappearance of so much of the growth in the meatus as remained after the bulk of it was shaved off, and the cessation of the otorrhea which soon followed, I am quite at a loss for an explanation. Of course such platitudes as counter-irritation and the production of a trophic change, are always at command. With regard to the beneficial effect of the operation on the head symptoms, I am, however, inclined to attribute importance to the bleeding from the lateral sinus.

As to the method of opening the mastoid, I am strongly of opinion that it should be done as close to the meatus as possible, and, by working toward the antrum, on the accepted anatomical data—that is, using either spina supra meatum or the upper wall of the meatus as a guide to the highest point of the osseous opening—by means of a hammer and gouge. Indeed, I cannot but ihink that trephines and borers are hardly justifiable. That a measure of success attends their use seems to me to show that, in the majority of cases, the layer of solid bone which has to be penetrated is not deep. My chief objection to their use is that, if the lateral sinus be wounded, the danger is not detected immediately, as in cases where the gouge is used, and irreparable mischief may result.

I have already occupied too much time, although I have endeavored to avoid anatomical and operative details which are familiar to all present. In conclusion, I may just mention that in those cases where the operation is undertaken to relieve the effects of chronic middle-ear suppuration, as it usually is, I utterly fail to understand the insistence of certain otologists on antiseptic precuations. That antiseptic washes should be used goes without saying; but to carefully render the skin aseptic before making a wound over the surface of which putrid secretion is destined to pass seems to me, to say the least, superfluous; unless, indeed, the operator wishes in every case to provide against possible ills from opening into the cranial cavity.

In the majority of these cases—especially when they are not treated in a general hospital, where various microbes may be supposed

to be collected together, and ready for an attack on any open wound—I am inclined to apply as little dressing as possible, and to have the wound syringed with warm boracic lotion every hour or two, the fluid being made to pass from the meatus to the wound and *vice versa*. As all who have any experience in this operation are aware, this through current cannot always be produced immediatoly after the operation, probably owing to reactive swelling. One of the greatest difficulties in after-treatment is to keep the channel leading to the antrum open. Equally well known is the fact that the wound often tends to fill with granulations, which require to be scraped away. For drainage purposes I prefer to use a lead tube, as it is more easily introduced when the channel has become narrowed; but, on the other hand, it also is more difficult to keep comfortably in its place.

As the cause which necessitates these mastoid operations and which so often endangers life in chronic middle-ear suppuration is the inspissation and subsequent putrefaction of pus, together with the tension so produced, my mind has for some time past been exercised with the question whether a better means of cleansing the recesses of the middle ear than we at present command could not be found. It has occurred to me to use for this purpose the digestive ferments. I hope to discuss this subject at length on a future occasion, but may be permitted now to mention that trypsin and papayotin in solution seem to me most likely to prove suitable. The former I have already employed (in the form of Benger's liquor pancreaticus mixed with sodæ bicarb. to secure alkalinity), and it acted most efficiently and painlessly in the case of a boy whose tympanum was filled with a choleastomatous mass. Such experiments must of course be conducted with care; but on general grounds we are entitled to assume that trypsin is likely to act strongly on most if not all dead tissues, and to spare living structures. If by its means we are enabled to break up hardened masses of pus, cholestearin and epithelium, and, perhaps also, dead bone, a distinct advance in treatment will be thus achieved.—*Brit. Med. Jour.*

ON SEWAGE DISPOSAL FOR WATER-CLOSET TOWNS.

BY ALFERD CARPENTER, M. D.

Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Glasgow. August, 1888.

It having been determined that "The Disposal of Sewage" be one of the subjects for consideration at this meeting, I think it right not to allow the most correct way of dealing with sewage to be put out of sight, because of its simplicity. It is twenty-two years since I introduced a method of treating town sewage to the notice of an assembly of men of science, specially called to consider the subject of town drainage. That was at the congress assembled at Leamington in 1865. I have repeatedly followed up the same subject at various meetings of scientific, medical, and sanitary bodies, always dwelling upon the points connected with the utilization of sewage on land by so-called "broad irrigation." At the International Congress assembled in London in 1881, I submitted in general terms a series of propositions for the consideration of the congress, and I now venture to re-state them for the consideration of this meeting in terms more explicit and detailed.

1. That the application of the sewage of a water-closet town to land in close proximity to dwelling-houses is not injurious to the health of the inhabitants of those houses, provided the sewage be fresh, that it be applied in an intermittent manner, and the effluent be capable of rapid removal from the irrigated fields.

2. The judicious application of sewage to soil of almost any kind, if it be mainly inorganic, will satisfactorily cleanse the effluent water, and fit it for discharge into any ordinary stream, provided the area treated is not less than an acre for each 250 persons.

3. That vegetable products grown upon fields irrigated by sewage are satisfactory and safe as articles of food, for both animals and man.

4. That sewage farms, if properly managed, do not set up either parasitic or epidemic dis-

ease among those working on the farm or among the cattle fed upon its produce.

5. That this immunity exists because the conditions necessary for the propagation and continuance of those disease germs which affect man and animals are absent, the microbic life on sewage farms being antagonistic to the life of disease germs, the latter, therefore, soon cease as such to exist.

6. That sewage farms may be carried on in perfect safety close to populations. It is not, however, argued that the effluent water is safe to use for dietetic purposes.

7. That there is an aspect in sewage farming which shows that it is a wise policy for the nation to encourage that form of utilization from a political economy point of view.

8. That to be financially successful, such farms require that the rainfall be separated from the sewage; the area large enough for alternate cropping, and the capital employed sufficient to insure a continuous and rapid consumptiou of the crops produced.

9. That if practicable sewage utilization by surface irrigation should be, for financial reasons, within the area of its own water-shed, and close to the populations producing the sewage,but it is not a necessity that it should be so, provided it be applied to the land within a few hours, not more than twelve of its discharge, and that there is no arrest of movement for more than very short periods before it is so utilized.

Several years have passed away since the matter contained in those propositions was put forth to the medical profession. I now intend to carry on the evidence as to their soundness by reference to the experience which has been gained in various parts of the kingdom, since the last report to a medical body, namely, 1881, but more especially by the results which have followed its continued application to the same land in my own neighborhood since that time.

There are two facts which no amount of argument derived from the use of chemical, or the bungling of local authority officials can controvert or deprive of their significance.

1. The utilization of sewage has been carried out on the same land consecutively for thirty years, frequently in a bungling manner, the area, however, being increased as the increase of population required it. Commencing with thirty-six acres only in 1851, it was all but abandoned as an incorrect proceeding because the quantity of sewage applied was in excess of the power of the soil to deal with it. Three hundred acres were then obtained about the time that I first became connected with the farm. These have been increased by new purchases as the quantity of sewage to be applied from increasing population rendered it absolutely necessary to enlarge the area of application, bnt the land irrigated for the first time thirty years ago still continues in use, and effects its object as perfectly as on the first application. The subsoil of the farm two feet below the surface shows very little alteration, and three feet below is not in any way contaminated by the continued application of sewage. The various crops grown upon the land take out the manurial properties of the sewage, and allow the soil to continue its purifying power even better than at first. To effect this, however, it is necessary that the cropping be incessant and that the land have occasional rest for a year from sewage application. The tendency of the repeated application of sewage to land is to silt up the lower portion of the subsoil and prevent it acting as a filter below the plough level, except for a short time. It follows, therefore, that the sewage must pass over the land rather than through it, and althongh intermittent downward filtration may purify the water, it will be temporary only, unless the soil is turned over frequently, so as to allow of its aeration. A sewage farm will bear deep ploughing better than other land, and grow larger crops in consequence.

2. The second great fact is that notwithstanding the very large price paid for land at Beddington and Norwood, namely, sometimes as much as £300 an acre, or more for some of it, and atotal cost of nearly £250.000, it has seldom been necessary to make more than a 2d.rate upon the parish to meet all the charges

required to be met. The capital raised is now being paid off, but not lost, and in forty years from the last loan, the whole farm will be the freehold of the borough, without any liability at all upon it, paying a fair sum toward the reduction of the rates, and retaining a large apen space with abundance of vegetation, in the midst of a large population, and providing a considerable amount of out-of-door work. The capital raised is an investment for the future, and not a scattering of immense sums of money in works which may become useless, like to those now being carried out by the Metropolitan Board of Works at the Thames outfall, by Crossness and Barking.

Let me take the propositions in turn. 1. as to the effect upon health.

I showed that in 1881 the average death-rate for ten years for the Beddington and Wallington district was 14.3. I reproduce the table with additions up to the present time. The deaths have not exceeded in number those in 1881, although the population has risen very considerably, and the births are twenty more than in that year. The rateable value of the district in 1861 was £11,-700, in 1871 was £20,671, in 1881 was £41,-616, and this year it is returned in the report to Surrey County Quarter Sessions as £47, 424, a tangible evidence of the increase of wealth and population around the sewage farm, whilst the zymotic death-rate last year is 0.5 only, and the average on the last seven years is only 1.2.

As regards its effect upon the health of the borough of Croydon, I showed in 1881 that the average death-rate for the borough was 17.9, and the zymotic death-rate 2.79. In 1886 it was 14.5, and the zymotic death-rate 1.53. In 1887 it was 14.7 and 2.2 respectively, the dry summer increasing the diarrhea among infants.

I need not follow this head any further except to remark that in February, 1887, I submitted a report upon the subject to the Society of Arts in London, in which I conclusively proved that in no single instance out of nearly 100 cases in which sewage has been utilized by broad irrigation had any fact been proved to establish the allegations of "insanitariness" which are sometimes raised against them.

2. As to the character of the effluent, it continues to be perfectly satisfactory. The analyses which are occasionally made by the local authority establish its maintenance of standard, which is very similar to that given by me to the International Congress, whilst no questions have been raised upon this point except whilst the Norwood Farm was overtaxed by excess of sewage. Dr. Angus Smith's report to the Local Government Board in 1879 was to the effect that as regards this form of treatment of sewage, it maintains its position, namely, "that in every respect the best results have been obtained by irrigation."

3 and 4. The third and fourth propositions need not be further discussed, for no proof has been even tendered to the contrary except by Dr. Tidy in his communications to the Society of Arts, which were based upon suppositions made twenty years ago, not upon any solid foundations whatever, a point I was able to prove conclusively in my reply to his paper before the Society of Arts, and to which I have already referred; and even Dr. Cobbold withdrew his antagonism before his death because it was proved to his satisfaction that it was based upon idea only.

5. The fifth proposition is an important one. It is difficult to prove a negative. I assert that disease germs are of two kinds, corresponding with active germs and resting spores, eggs hatched and growing, and eggs unhatched. The hatched eggs are rapidly destroyed by the physical conditions under which they arrive at the farm; exposure to air, a lower temperature than that necessary for warm-blooded creatures, absence of pabulum, and presence of injurious gases soon destroy their life, but the resting spores (unhatched eggs) are more persistent. They certainly arrive on the farm, and it might be expected they would do mischief, and so they do (and would) if the sewage is not immediately applied to the land. But then, if ar-

rested, Nature comes to our rescue and destroys them by the sulphuretted hydrogen which is engendered as soon as putrefaction is rampant; but putrefaction destroys the chance of a satisfactory financial return from the use of the sewage, and it is not to be encouraged. As soon as the resting spores come in contact with the spongioles of plant-life they are taken up with avidity, and taken in as food most energetically, much as human beings take in oysters when they get the opportunity. Some classes of plants, which I have presumed to name "carnivorous," among which I place rye grass, do assimilate these germs in the most rapid and satisfactory manner, so that no particle escapes their devouring power, and the effluent, as far as my observation goes, is absolutely free from their presence.

7. The seventh proposition is also a most important one. A local authority buys a site and spends a large sum in erecting tanks and machinery for chemically treating sewage. If they give up the process, the whole sum so expended is utterly lost. Not so the sums invested in the purchase of land. The capital is there, and every farthing taken from the rates is either left in the land and raises its capital value by increasing its agricultural power, or sends into the country an additional supply of meat, milk and vegetables, which make an actual addition to the wealth of the nation, although the locality itself may not apparently benefit by a reduction of taxation. The Corporation of Croydon have at this moment an estate of more than 700 acres, purchased for sewage-farm purposes. Its agricultural value has been raised five times over since it has been so utilized, its power to employ labor correspondingly multiplied, to the advantage of the tradesmen and owners of cottage property in the borough, whilst the housewife has the choice of so much more milk and meat than would have been the case if no farm had existed. Let these conditions be established in five hundred other districts in the kingdom, including London, and pauperism will be correspondingly lessened, because so much more laborg will be provided, at least 40,000 agriculturists kept on the land who are not now employed, the price of milk kept down, whilst thousands will have it who cannot have it now, and a mass of wealth added to that belonging to the country which ought to recommend sewage farming to all political economists, who study production and its effect upon population.

8. The financial question contained in the eighth proposition is not medically interesting, but it effects us as ratepayers. I will only remark upon it that the greater the cost the greater the necessity of employing capital upon the land, and the greater the amount of produce raised, the greater the necessity for capital to be utilized in consuming it. The Croydon Corporation blindly allow their committee to waste the produce of the farm by preventing the consumption of produce on the farm, and thus play into the hands of cowkeepers and others, who are able to get it at a cheap rate. This is a monstrous perversion of common sense, which is bearing fruit in the fact that the receipts for produce on the farm, under its increased area, are less in amount than they were before the new land was added to the farm; but such is one of the penalties a town has to pay for electing representatives unable to deal with these questions from a broader view than that of self-interest for the moment.

9. The last proposition has reference to situation. The sooner the sewage is on the land the better chance for a good result on every point of view. If, however, the sewage has to be pumped, it increases its financial cost, and arrangements must be made for its rapid and continuous removal. If sewage is kept moving it may travel any distance. The farm may be forty miles from the town producing it, but if so removed the town must expect to pay a larger sum for cost of transit. This may be counterbalanced by cheaper cost of land. The expense of pumping can be calculated to within a few pounds, and if the rainfall is kept out of the sewers, and proper allowance made for yard, street and roof drainage, there need be no difficulty whatever on this head.

I earnestly recommend sewage farming as applicable to all water-closet towns without exception, and feel sure that it will be far more satisfactory for the kingdom at large, when it is so utilized, than for it to be sent into the Thames, the Mersey, or the Clyde, to the gradual destruction of our waterways, and the removal from our midst of that which will give sinew, muscle, bone and marrow to a people languishing for such material, and in consequence of its scarcity at home at this moment we have to import the material required for its production from the other side of the globe.—*Brit. Med. Jour.*

ON HEADACHE FROM OVERLOOKED CAUSES IN THE NASO-PHARYNX AND EARS.

BY H. GRADLE, M. D., OF CHICAGO.

The present communication is intended to call attention to certain attacks of more or less persistent headache, the causes of which are often overlooked. These headaches, due to naso-pharyngeal or aural disorders of which the patient is scarcely conscious, are perhaps not common. But the fact that they do occur and can be more or less readily relieved seems to warrant their description. If the writer has seen a fair number of these somewhat exceptional cases, it is on account of their having been referred to him—often under the impression that their cause might be some refractive or other anomaly of the eyes.

Four types of such disturbances have been seen often enough to be classified as types.

1. The least frequent form of such head aches of occult origin is that of diffuse pain throughout the head, lasting from one to three or even five days. Such an attack may occur again after a variable length of time, or (more rarely) one attack may follow directly after another. Between those instances in which the patients complain of nothing but the headachee and the other extreme in which malaise, bone-ach, and slight rise of temperature characterize the disorder as an acute infection, all gradations can occur. In the last-named class of cases slight throat symptoms point out the hidden origin of the trouble, viz., circumscribed follicular tonsillitis, or rather follicular angina. For the lesion may be either in the tonsil, or in a lymphatic follicle of the pharynx, or in the pharyngeal tonsil or its lateral expansions. It can be seen in the form of a whitish spot, located in a crypt and surrounded by a narrow congested zone. The more numerous these inflammatory foci the more marked are the febrile symptoms, and the more noticeable the local disturbances, while a single spot may not make itself felt in any way but by headache.

Although each attack is self-limited in course, its duration can be shortened by brushing with a strong solution of nitrate of silver.

2. A second more common type of headache is a dull occipital pain, lasting only perhaps some hours or days, but frequently returning. It is occasioned by enlargement of the pharyngeal tonsil in the form of adenoid vegetations. It occurs especially during the congestion started by a fresh "cold," but at other times as well. I have met with it only in children. Any extensive glandular hypertrophy at the roof of the pharynx can scarcely be overlooked by an attentive physician. But a minor degree of enlargement in an otherwise healthy child may give rise to no symptoms but those of impeded nasal respiration at night, and may hence escaped detection. The treatment is as simple as it is efficacious, viz., operative removal of the pharyngeal tonsil.

3. Headaches due to hypertrophy of the nasal mucous membrane have come under my observation a limited number of times, but always in individuals either of a neurotic type or run down in health from overwork or worry. The pain was either frontal or diffuse, not very severe and not constant, but increased by excitement or mental work. The nasal lesion consisted in hypertrophy of the mucous membrane, especially on the middle turbinated bone, from the free edge of which the swollen membrane protruded as if it

were too large for the bony frame. In some of the cases distinct polypi were present. Catarrhal symptoms, or at least catarrhal secretions, are not a necessary feature of this condition. Some of the patients, indeed, scarcely paid any attention to their nasal symptoms. I have generally found that where true hypertrophy of the mucous membrane predominates, the vascular irritability and permanent enlargement of the submucous cavernous tissue are not very marked. The nasal lesion can be cured by frequent spraying with nitrate of silver solution, and in proportion as the nose improves, the headaches diminish. Wherever the mucous membrane projects in polypoid form, it is of course the quickest way to remove it with the hot or cold snare.

I will not refer at present to the various forms of headache associated with the condition of irritable nose. For in that form of trouble in which there is more or less enlargement of the cavernous tissue and consequently marked—though it be temporary—obstruction of the nasal passages, the patient will himself call the attention of the physiciun to the state of his nose.

4. A fourth type of almost continuous headache I have met with in children, dependent on diminished patency of the Eustachian tubes. When the hearing is not impaired a fairly intelligent child may suffer from a feeling of fulness in the ears without ever complaining of its ears. Occasionally the obstruction of the Eustachian tube, and subsequent reduction of intra tympanic pressure, gives rise to persistent headaches, which stop at once on inflating the middle ears. If the Eustachian obstruction be one-sided the child notices a difference between the two ears. But if both Eustachian tubes are involved without marked impairment of hearing, the ear trouble may not be suspected, and it is only after inflation that the child feels that its ears are now "more natural" than they were before. Such slight Eustachian obstruction, and the headaches dependent thereon, can be readily cured in children by a few inflations, either by Politzers method or, still better, by means of the Eustachian catheter. The naso-pharynx should, of course, receive due attention, in order to prevent a return of the Eustachian obstruction.—*Jour. Am. Med. Assn.*

Dr. Lewis Whaley, of Blountsville, Cal., reports in the *Atlanta Med. and Surg. Jour.* the case of a woman, aged nineteen, who had been married about one year. He says:

"Upon examination I found four inferior extremities—two sets of genital organs complete—both external and internal; two pubes, two montes veneris, two urethras, two umbilici, two distinct sets of bowels and two ani. Both genitals and bowels entirely independent of each other.

She had menstruated regularly from both sides simultaneously until two months ago. Sometimes one bowel would act when the other would not. Again one bowel would be loose, have diarhea, and the other be constipated."

The woman became pregnant in her left uterus. Upon calling consultation, owing the narrow diameters of the pelvis, it was thought advisable to produce abortion. Dr. Whaley soon delivered her of a well-formed fetus of ordinary size for three and one-half month's term.

The *Physician and Surgeon* says that it is a recognized fact, that the physician who has been appointed to fill the chair of "Obstetrics and Gynecology and Diseases of Women and Children" in the Michigan Univerity, is a failure as an instructor, and that his appointment was secured through the argument that, "He is to lecture to the freshmen, and they will not know the difference."

The Report of the Michigan State Board of Health gives in their order of greatest prevalence the following diseases for the month of July: Neuralgia, diarrhea, rheumatism, consumption of lungs, intermittent fever, bronchitis, cholera morbus, remittent fever, dysentery, tonsillitis, cholera infantum, erysipelas, inflammation of bowels, inflamma-

tion of kidney, pneumonia, influenza, measles, whooping-cough, typho-malarial fever, typhoid fever (enteric), scarlet fever, puerperal fever, inflammation of brain,diphtheria, cerebro-spinal meningitis, membranous croup.

PASTEUR'S TREATMENT.—During the month of May, 161 persons were treated at the Pasteur Institute. Out of this number 45 were bitten by animals in which the existence of rabies was proved experimentally; 97 were bitten by animals certified to be rabid by veterinary surgeons, and 14 were bitten by animals suspected to be suffering from rabies. Out of this number two died. In both the fatal cases the bites involved the face,and were very severe. They came under treatment the second and fifth day respectively.

BOOK REVIEWS.

HANDBOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS, Including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Extemporaneous Pharmacy, and Minute Directions for Prescription Writing. By Sam'l O. L. Potter, M.A., M.D., Professor of the Theory and Practice of Medicine in the Cooper Medical College, San Francisco. Philadelphia, P. Blakiston, Son and Co., pp. 827; St. Louis, J. H. Chambers & Co., S. M. Simpson & Co.

This is one of the most valuable books that has been offered to the American profession for some time. There have been a few good books written upon Materia Medica and many poor ones. This is one of the good ones.

The author is not a novice in the work, at least three volumes, though of less size, having been favorably received in this country and Europe.

The title of the book conveys the idea that the author has entered the wide field boldly and for thorough exploration. Not only does he treat of the essentials of Materia Medica and Therapeutics concisely and carefully, but he has taken care to present such information upon the subject of pharmacy as the intelligent physician should possess, who desires to "handle the implements of his profession with confidence."

The arrangement of the first part, upon Materia Medica, is that of a "modified alphabetical plan" by which the convenience of the alphabetical arrangement is preserved and yet agents closely related are grouped together.

We believe that every article mentioned in the U. S. Pharmacopeia is noticed in this work, while in addition all of the important unofficial agents are considered.

The second part, devoted to pharmacy, has been written with the purpose in view of aiding the practitioner who would dispense his own medicines, and for those who would prevent in their own practice the objectionable feature of modern pharmaceutics, the renewal of prescriptions without the knowledge of the physician.

The third chapter upon Special Therapeutics shows careful study, and contains an alphabetically arranged index to the modern treatment of diseases.

In the appendix we find formulæ for hypodermic use, metric equivalents, obstetric memoranda, notes on temperature in disease, the treatment of poisoning and the examination of urine; also the formulæ of the most noted patent medicines.

We notice that the author uses the word "official" instead of the older term "officinal" and he gives as his reason that as now-a days only about one-fourth of our professional weapons are kept in the "officina" or drug store, it is a misnomer to apply the shop title to them.

We cannot refrain from quoting the inscription "To my wife I dedicate my first large book in loving appreciation of the patience with which she has borne my absorbtion in this work during the past two years."

The mechanical work is well done and in this the popular publishers have added another success to their already large stock. The book being written in San Francisco and published in Philadelphia is evidently intended for the whole profession.

WM. PORTER.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 12. ST. LOUIS, SEPTEMBER 22, 1888. TERMS: $3.50 A YEAR.

REPORTS ON PROGRESS.

GENITO-URINARY DISEASE AND SYPHILIS.

BY BRANSFORD LEWIS, M. D.

I. THE GONOCOCCUS IN THE FEMALE.—*Lyon Medical.*

II. THE MEDICO-LEGAL ASPECT OF THE GONOCOCCUS.

III. ABORTIVE TREATMENT OF GONORRHEA.

IV. HEMOGLOBINURIA.—*Le Progres Medical.*

V. ALUM IN HEMATURIA.

VI. DIABETIC REGIMEN OF DUJARDIN-BEAUMETZ.—*Lyon Medical.*

VII. CAUSE OF MALIGNANCY IN SYPHILIS.—*Boston Med. and Surg. Jour.*

VIII. TREATMENT OF ALBUMINURIA.—*Med. Record.*

THE GONOCOCCUS IN THE FEMALE.

Conrad, in attempting to determine the practicability of differentiating between specific and non-specific inflammations of the female generative organs, obtained specimens of discharge from 16 woman. With the assistance of other bacteriologists, all working independently of one another, each having a specimen of each of the 16 cases, he arrived at the following conclusions:

1. The discovery of the gonococcus is much easier in the male than in the female, because the latter is seen very rarely in the first stage of the affection; she generally washes before the examination;she frequently does not submit to local treatment until after having made use of injections.

2. Although in recent cases of gonorrhea in the female, the gonococcus of Neisser may nearly always be disclosed, it is not possible to find it in the majority of cases when the affection becomes chronic.

3. Gonorrhea may exist in the female in the acute or chronic stage, notwithstanding repeated failures to find the pathogenic microbe.

On this subject, M. Eraud gave the results of his experimental research in the same direction, in a paper read before the Societe Nationale de Medicine de Lyon, July 16,1888. He found in the study of nearly 200 cases of gonorrhea in the female that the gonococcus existed in the uterus, the urethra, and, rarely, in the vagina in conformity with the conclusions already reported by some German bacteriologists. But the interesting and original part of his paper was the assertion that gonorheal vaginitis exists only exceptionally as a distinct morbid entity, but is almost always consecutive to a specific metritis. He bases that opinion on, 1st the rarity of the gonococcus in the vagina; 2nd the presence of the gonococcus in the uterus although at the same time it does not exist in the vagina; 3rd on the intensity of the inflammation,or rather on the very great abundance of purulent elements met with as the posterior orifice of the vagina or the uterine neck is approached.

Then the author denies that the so-called common vaginitis is an infiammation, he discerns nothing there but a desquamative process of the mucous membrane, as examination of the secretion discloses epithelial cells, but no leucocytes; the pus globules or inflammatory elements coming exclusively from the uterus.

The Medico-Legal Aspect of the Gonococcus.

P. Aubertin, in the *Lyon Medical* recognizes the prominence assumed by the gonococcus in forensic medicine of late, and advises that the medical witness be well prepared for close questioning on this subject.

He believes that

1. The gonococcus should be considered as characteristic of blenorrhagic pus, and search for it should always be made in cases to which special interest is attached.

2. The grouping of the micro-organisms in the protoplasm of the pus cells and around the nuclei is alone to be accepted as characteristic. A single well defined cell may be sufficient, but full dependence cannot be placed upon cocci scattered or in groups outside the cells.

3. The result of a search for the gonococcus should not be depended on except when the pus is obtained directly from the secreting surface and immediately spread out and dried. The examination may then be made at leisure.

4. It is at present impossible to decide positively as to the presence or absence of gonococci from the examination of dried purulent discharge on linen, because of the disintegration of the pus corpuscles and of the want of characteristic grouping of the microbes.

5. One should not, until experimentation has established its legitimacy, place too much confidence in the cultures made from linen charged for some time with dried gonorrheal pus.

6. The many sources of accidental contagion must not be lost sight of; therefore, although the presence of gonorrhea may be determined in a given case, its source must be ascertained by judicial inquiry.

Abortive Treatment of Gonorrhea.

In "Progress," for August, 1888, a paper with the above title appears, read by Dr. E. M. Wiley before the Kentucky State Medical Society, July 15, 1888.

The treatment therein described and of which the author says, "I simply wish to present a new method of treatment, so far as I know, not yet published," consists in the prolonged irrigation of the urethra with hot dilute bichloride solution by means of a fountain syringe and a catheter.

In the *N. Y. Med. Record*, April 21, 1883, will be found a paper by Dr. Holbrook Curtis, of New York, describing the method of prolonged retro-jections of simple or medicated hot water, with fountain syringe and catheter, then being used by him. And Otis in his brochure "Diseases of the Male Urethra," Physicians Leisure Library series, 1887, mentions the efficacy of the retrojection of hot bichloride solution used in the same manner, or with the modification that a Kirfer's two-way tube is used instead of a catheter which is unbearable in some acute cases without the previous employment of cocaine solution.

So, Dr. Wiley will observe that the "new method," which by the way, is a most rational and successful one, is not as new as it might appear to be.

Hemoglobinuria.

Of late the attention of the Societe medicale des hopitaux has been directed to the subject of hemoglobinuria, that condition of the urine in which, when passed, it is deeply colored with hemoglobine, but contains no blood corpuscles.

Two views are held as to the location of the origin of the faulty condition. One advocated by M. Lepine in particular, asserts that there exists in the blood-serum a certain quantity of hemoglobine previously dissolved. His claim is based on the fact that if the blood of such subjects is examined at the time of the attack, all proper precautions being taken, the sanguineous serum will be found to be colored. The kidney, therefore, according to this theory, plays no role other than that of elimination.

On the other hand, according to M. Hayem, the part taken by the kidney is very much

more important. That there is no previous alteration of the blood, but, superinduced by a renal lesion with active congestion, the blood-globules are dissolved in the kidneys by a process as yet not well understood.

In support of the latter view, M. Hayem reported a case of hemoglobinuria occurring in a patient the subject of acute articular rheumatism. There was abundant albuminuria transient, however, together with renal cylinders and epithelium, all indicating that there existed a certain amount of rheumatismal nephritis with the hemoglobinuria.

Hemoglobinuria is a more frequent result of exposure to cold in which the accompanying lumbo-abdominal pain points to renal congestion as a factor.

The influence of exercise and fatigue has been demonstrated in other cases.

M. Robin is disposed to think that for the production of hemoglobinuria, a simple congestion of the kidneys will suffice, but that the general nutrition must first be involved, and in that way the power of resistance of the red blood globules is lessened.

He proposes to divide the diverse forms of the affection into two groups, the first to comprise the true hemoglobinurias which follow a cold, fatigue, etc., but which more often have been preceded by conditions which modify nutrition, such as syphilis, malaria, tuberculosis, alcoholism, etc. It comprises also the hemoglobinuria occurring in connection with Bright's disease.

The second group is to comprise the hemoglobinuria produced by any poisons such as arsenic, chlorate of potassium,naphthol, pyrogallic acid, iodine, glycerine, certain mushrooms, etc., which cause destruction of the structure of the red blood disks. He has published numerous observations of cases of this kind..—*Jour. de Med. et de Chir. Prat.*

In this connection, the clinical observations of Drs. Pamponkis and Chamatianos, of Greece, are of great interest. These gentlemen give the histories of six cases of hemoglobinuria, of which the causative influence of sulphate of quinine was shown beyond a doubt, by means of its repeated withdrawal and readministration during the course, and in the intermissions of malarial fever.

By experimeutation in the same patients it was determined that the manifestation was dependent on, first, the size of the dose, large doses producing it where smaller ones failed; and, second, on the preparation of quinine used. Of the various alkaloids of cinchona bark employed, only the sulphate (the influence of which was most marked), the bromohydrate and the tannate of quinine caused the hemoglobinuria, which showed itself in from six to forty-eight hours after the exhibition of the drugs.

Alum in Hematuria.

H. D. Didama (*Jour. of Amer. Med. Asso.*) on the strength of the uninterrupted successes with it in five cases of obstinate hematuria, advises the use of alum internally, 60 grains in 24 hours, in that affection.

Diabetic Regime of Dujardin-Beaumetz.

Permitted.—Gluten bread, baked or stewed potatoes, broth containing fat, bouillon with poached eggs, broth from greens, cabbage or onions, but without turnips or carrots, all viands with non-starchy seasonings, fat, spinage, sorrel lettuce, cabbage, asparagus, artichoke, celery, mache, various salads, goose berries, glycerine saccharine, tea, and coffee.

Not Permitted.—White bread, bouillon-panades or broths with peas, beans, or pastry, sauce or gravy, milk, cream or flour, beans, peas, beets, carrots, turnips, rice, amylaceous fecula, pastry cakes, oranges, cherries, prunes, sugar etc.,

Doubtful.—Milk, onions, leek, baked artichokes, melons, apples.

Causes of Malignancy in Syphilis.

M. Fournier gives six causes for malignancy in syphilis:

1. Age. 2. Scrofulo tuberculosis. 3. Al-

coholism. 4. Malaria. 5. Hereditary predisposition. 6. Insufficiency of treatment.

Syphilis is especially grave at the two extremes of life. Acquired beyond fifty, the prognosis is very grave, and beyond sixty the disease is characterised by tendency to phagedena, abundant and general symptoms, early appearance of gummata and cerebral symptoms; and lastly, to a marked reaction upon the general health, prostration and cachexia, and loss of general strength and appetite. In the scrofulous, syphilis is very apt to take on the suppurative and rupial forms. It is among them precocious gummata and adenopathies are seen. Alcoholism acts in predisposing to grave and precocious forms of syphilides, constant eruptions, cachexia, and cerebral syphilis.

Poverty is one of the causes of malignant syphilis, and it is among the poor that the worst forms of syphilis are the most common.

Nervousness from overwork is one factor of gravity for syphilis in directing its localization upon the brain and cord.

Fournier says that nineteen out of twenty cases of severe tertiary syphilis are the direct result of insufficient treatment, or no treatment at all.

Treatment of Albuminuria.

Dr. Semmola uses the following formula in the treatment of albuminuria, of whatever kind, when it is dependent on nephritis:

℞ Sod. iodidi 0.90 . gr. xv.
Sod. phosphatis 1.80 gr. xxx.
Sod. chloridi 5.40 . ʒ. iss.

Dissolve in an aqueous vehicle and give all in 24 hours, in milk if preferred.

Dr. Gairdner, in his address at Glasgow, said:

"The physician of the future will study the Bible in the spirit of modern scientific freedom and of historical research, not under the influence of mere tradition and ecclesiastical authority. And thus only can the reconciliation of science and religion ever be brought about."

ORIGINAL ARTICLES.

OSTEO-PLASTIC TEMPORARY RESECTION OF THE ARCH OF THE PUBIS. IN ORDER TO EXPOSE EXTRA PERITONEALLY THE BLADDER AND SURROUNDING PARTS.

Translated from the German.

BY A. H. MEISENBACH, M. D., ST. LOUIS.

In No. 29 *Centrallblat fur Chir.* 1888, Niehaus, of Bern, describes the above named operation which he has devised in order to expose extraperitoneally the bladder and surrounding parts in cases in which operative interference of this organ and parts surrounding is indicated.

A vertical incision is made in the linea alba, commencing at a point corresponding to the apex of the bladder downward to the symphysis curving around the root of the penis downward to a point opposite the upper or middle portion of the ascending ramus of the ischium. The bone being exposed, the periosteum is incised vertically on the anterior surface of the ramus of the ischium, and by means of an elevator the bone is freed from periosteum on all its sides. The bone is carefully cut through with a chisel. A small incision is now made on the horizontal ramus of the pubis near the inner border of the vena cruralis cutting through the musculus, pectineus and periosteum on the anterior superior surface. The periosteum is lifted from the bone, and the bone severed by means of the chisel.

The symphysis is now cut through with knife or chisel, and the soft parts carefully severed from the inner surface of the descending ramus of the pubis down to the point of its severance from the ischium, care being taken to cut close to the bone.

Two fingers are carried behind the symphysis and traction made forward. The loose cellular tissue intervening between it and bladder is easily separated, still continuing the traction forward and outward, the diaphragma urogenitale is put on the stretch and can be

easily severed from the descending ramus without injuring any vessels or nerves. (Vena dors penis and branches of Art., Ven., Nerv. pud. com).

The ramus of the corpus cavernosnm and musc. ischio-cavernos. is likewise cut off from the bone. The resected parts can now be turned outwards fully exposing underlying parts. Should vertical incision not give room enough, a transverse incision parallel with Lig. Poupart, and close to it can be made. In the female, the Lig. rot. is cut through which is of no consequence. In the male however, the spermatic cord lies transversely in the wound; the testicle is

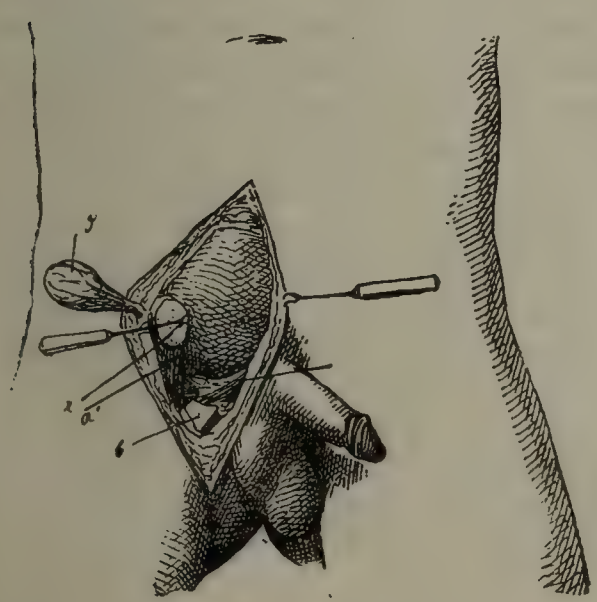

Fig. 1—Filled bladder lying forward. *a* Symphysis. *a'*. Descending ramus of pubis. *b*. Section through ascending ramus of ischium. *c*. Art., ven., Nerv. pud. com. *d*. Testicle.

carefully pulled up out of the scrotum and wrapped in antiseptic gauze along with spermatic cord and turned outward, and after the operation, carefully replaced in position.

The parts brought into the field of vision and now easily within reach are the anterior and lateral portions of the bladder, prostate, beginning of the urethra.

The bladder may easily be separated posteriorly from the peritoneum whereby the uterus at their junction with the bladder may easily be reached.

In the female the vaginal walls, bladder and its base as well as the lower segment of the uterus are thus made accessible.

By opening the bladder, the whole lumen of the organ is exposed.

The base is easily reached, which in hypertrophies of prostate, etc., is of great importance. Drainage of the bladder at its lowest point is easily carried out, and suture of the bladder can be exactly performed.

After the operation on the bladder or surrounding parts, the reflected resected pubic arch can be immediately, or within a few days, as the case may be, replaced in position, the symphysis united by silver wire suture or by a firm pelvic bandage held in position.

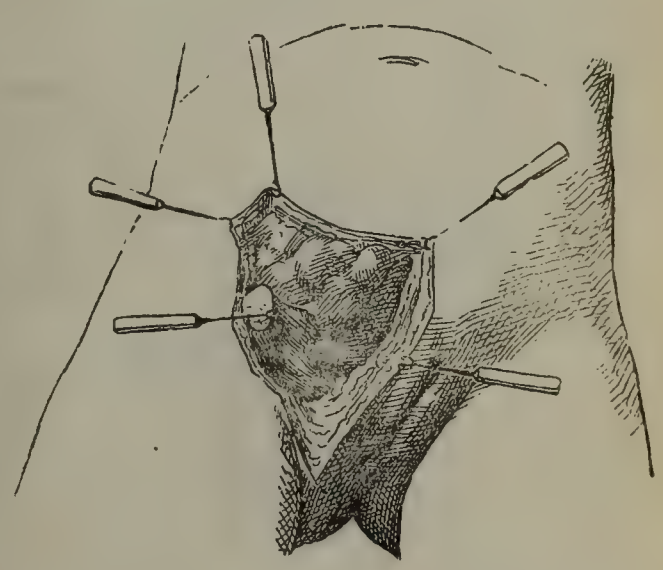

Fig. 2—Filled bladder lying forward showing ureter at its entrance to bladder. Intestines visible through peritoneum.

Should firm union not take place, loss of function would not be likely, as cases of partial resection of pubis, and ectopia of bladder demonstrate, in which latter cases, the anterior portion of the bony pelvic ring has remained undeveloped.

It is true that by turning aside the resected pubic arch, the nerv. obturat. and accompanying vessels are put on the stretch, but the periosteum guards them from lesion, at least 10 operations on the cadaver, and 1 on the living subject have never demonstrated any lesion of the nerve or vessels.

This whole operation is extraperitoneal and offers advantages not to be had in sectio alta supra-pubica, in the sectio alta

sub-pubica of Langenbuch, nor in the extra-peritoneal section of Bardenheuer. In all of the above operations the operator has to work in a small space, and the field of vision is so interfered with by operator's hands that artificial light is often necessary, especially in controlling deep seated hemorrhage.

The absolute opportunity for perfect drainage, the perfect view of the field of operation are points of advantage, which it is hoped will give this operation a legitimate place in surgery.

It is understood, however that this operation is applicable only in certain cases, such as enormous calculi with suppurative

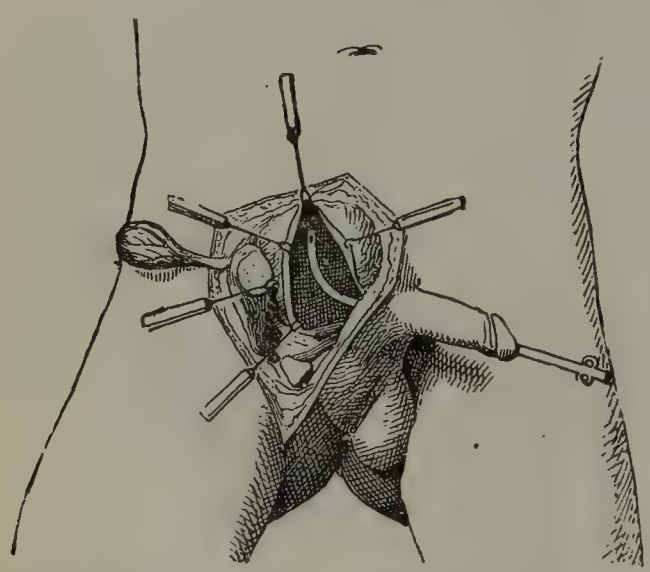

FIG. 3—Showing parts after opening bladder.

cystitis, tnmors of the bladder, operations on the prostate, vesical fistula, recto-vesical fistula, etc.

Also in cases of hysterectomy where there are broad adhesions, and in early extirpation of carcinoma of the uterus this operation may be of value.

As already stated the operation has been done once on the living subject. The case is as follows:

Mrs. G., æt. 38, of graceful, delicate physique, otherwise previously healthy. Tuberculosis hereditary, but not demonstrable in patient. In 1886 had perityphlitis, slow recovery. In September, 1887, a large, subacute exudation in ileo cecal region was found to exist. High evening temperature, also, suppurative cystitis, not influenced by medication. For some time escape of gas from bladder and urethra. Beginning of December, 1887, abscess above Poupart's ligament opened under anesthesia. Large abscess cavity found extending towards lumbar vertebræ. Drainage, and lowering of temperature, off and on retention of pus and fever. Some time after opening of abscess, feces appear in the wound, stool per anum scanty and irregular.

Status March 12, 1888, patient much emaciated, has suffered much recently from increased passages of feces and gas through bladder and urethra. Left lung shows remains of previous infiltration, no other tubercular infiltration to be demonstrated. Above Poupart's ligament broad fistula which discharges marked quantities of feces. Urine loaded with pus and feces.

Operation March 14, 1888. Laid open freely fistula along Poupart's lig. to bladder; a lagune like cavity extended downward as well as towards bladder; on right side of bladder a fistulous opening into which a finger could be introduced into the bladder. Performed osteo-plastic resection as described; very little hemorrhage. Right half of bladder readily accessible. Very difficult to separate bladder from tuberculous infiltration, especially the thickened peritoneum was difficult to isolate from the quadrupally thickened walls of the bladder. Removed exuberant fungus and shreds of fistulous opening into bladder with sharp curette. Walls of bladder very fragile. Freshened edges of fistulous opening and closed same with five silk sutures. Placed retention catheter in bladder, closed resected arch by catgut sutures through symphysis, closed wound from symphysis downwards. Placed drain in lowest angle of wonnd and caraied up to point of suture in the bladder. Left abscess cavity open as well as upper portion of vertical incision in order to better control the suture of the bladder. Tamponed wound with iodoform gauze.

Patient stood shock of operation excellently,

considering her bad condition. Fistula of bladder healed in a short time with exception of three minute openings, which was a very satisfactory result considering the condition of the parts. Bladder symptoms improved rapidly and patient convalesced in satisfactory manner. After three days catgut suture tore through, and resected portion separated again, as no bandage could be put around pelvis on account of fecal fistula which still discharged through the ileo-cecal region.

Space does not permit me to follow the case further, suffice it that proof has been brought that the osteo-plastic resection, has been demonstrated to be feasible and without danger, especially if a patient in the condition of the patient operated upon, was able to stand the inroads necessary in this operation.

A CASE OF THROMBOSIS OF BRACHIAL ARTERY AT ITS BIFURCATION, WITH PARALYSIS OF ARM AND SLOUGHING OF CUTICLE. RECOVERY.

BY H. C. DALTON, M. D., SUPT. CITY HOSPITAL.

Paper read and Patient shown to the St. Louis Medical Society, Sept. 15, 1888.

Walter R., entered hospital Aug. 11, 1888, with the statement that two days before admission he was driving a wagon, and while lying on the seat leaning on the left elbow with arm strongly flexed, and head resting on hand, he felt a tingling sensation in fingers, and an agonizing pain extending from middle of arm to tips of fingers; his hand was pale and shriveled. He described the pain as a "bone-breaking pain." The arm was completely paralyzed both as to motion and sensation.

The paralsyis continued for twenty-four hours, when slight motion returned.

When admitted to hospital the following condition was noticed:

The hand, forearm, and lower half of arm, was of a dark bluish color, the line of demarcation between the discolored and normal skin being quite pronounced, the discolored part being elevated above the normal cuticle to the extent of a quarter of an inch or more. The affected cuticle presented a shriveled, or goose flesh appearance, and was somewhat indurated. Pins stuck at any point into forearm gave no pain. The motion of arm was very limited; when he wanted to move it, he would lift it with the right hand. The pain was very severe and almost constant in spite of large doses of morphine. The arm was cold and somewhat clammy. The pulse could not be traced lower than the bifurcation of the brachial artery; the pulsation being extremely feeble between this point and the line of demarcation. The cuticle over dorsal surface of hand and wrist and inner surface of forearm was very dark. A remarkable feature of the case was that the pulse, temperature, and respiration were normal; pulse in fact being rather slow, 66 per minute.

Another peculiar feature was the short length of time it took to produce the thrombosis, he was positive that he was not leaning on the arm more than two minutes.

His family history is as follows:

His grandfather, grandmother, and an uncle died of hemiplegia; his mother died of phthisis pulmonalis. He has always enjoyed good health with the exception of rheumatism three years ago, since which time he has been entirely free from it. Has used alcoholic stimulants rather freely for the last three years.

As you will observe, almost the entire cuticle on inner surface of forearm, and the dorsal surface of hand has sloughed. The function of the arm, however, has been fully reestablished and the motion and sensation is perfect.

The treatment adopted was enveloping the arm, forearm, and hand, in a large quantity of absorbent cotton, dipped in a two and a half percent carbolic acid, over this gutta-percha tissue and a bandage.

The progress toward reco y has been steady and uninterrupted.

The pulse did not return at wrist until eleven days after the injury.

THE HODGEN SUSPENSION SPLINT.

BY H. H. MUDD, M. D., ST. LOUIS, MO.

The chief reliance of physicians and surgeons in the treatment of fractures of the femur appears to be in Buck's extension. The necessary movements of the patients, the difficulty in adjusting the padding, or the carelessness of the surgeon not infrequently results in overlapping or in lateral or posterior angling, and, consequently, a crooked and shortened bone. The after-care of a case treated in a properly adjusted Hodgen splint is so trifling, compared with that required by Buck's method, that I am tempted again to present the claims of the suspension splint of Dr. John T. Hodgan. Surgeons use with Buck's extension twelve to twenty pounds pull, and shortened legs attest its inefficiency. The comparatively perfect result to be attained by the judicious use of a Hodgen suspension splint is not, I believe, to be obtained with any other method. In many of the text-books the physician now finds a description of the Hodgen suspension splint.

Extension is so universally admitted to be of prime importance in the treatment of the fractured femur, that I shall not endeavor to prove its value, nor do I deem this the place to compare and discuss the relative merits of the various procedures resorted to in the effort to secure equable and continuous extension. Many and various are the methods devised. In many of the text-books a description of Hodgen's suspension splint is found, but few authors seem to fully appreciate the benefits to be derived from suspension and extension as combined in this splint. The use of the splint is certainly becoming widely extended, but it appears to be rather by example and practice than by force of authority. It is a splint which will win its way into favor by its own virtues after it is once understood by a surgeon of mechanical tact. I hope since the splint is simple in construction and theory, to make so plain its application and its principles, that every surgeon can use it with the comfort and profit to his patient which will follow its skilful manipulation. The surgeon wlll, when its advantages are appreciated, rejoice in the knowledge of one of the great blessings the ingenuity and the skill of man has bequeathed to medicine.

Simple and effective continuous extension was obtained, I think, in oblique suspension, as first advocated by Nathan R. Smith, when he introduced his anterior splint. The same purpose is easily accomplished in that modification of Smith's anterior splint devised and so successfully used by the late Dr. John T. Hodgen, of St. Louis. This splint in the hands of an expert secures nearly perfect immobilization with extension so equable and effective as to give practically perfect results, nor does the freedom of motion allowed the patient interfere with the union of the broken bone. Figure No. I shows the splint in use. The leg is resting on muslin strips which pass under it. These are secured by pins at each end, after overlapping the arms D E and D′ E′ of the splint. Each strip supports its proportion of the weight of the leg. These strips extend from the heel to the gluteal fold. The adhesive strip H, softened by warmth or by turpentine, is applied to the leg, and secured in position by a roller which extends as high as the knee. This strip secures the leg in the splint, since it is fastened by the cord and block N to the foot of the splint at F. The splint itself is composed of a single piece of No. 2 wire, bent as shown in fig. No. 2. The sliding hooks D D′ and E E′ are used for attaching the suspending cords to the splint. The use of the arch O is to maintain the proper width of the splint at its upper end, viz., 20 or 25 ctm. (eight or ten inches). This arch is loose and easily slipped into position over the ends of the wire which forms the splint before the latter is applied to the leg. The width of the splint at the foot is about 10 ctm. (four inches), and is determined by the bend in the wire which forms the body of the splint. The wire hooks E E′ and D D′ present at one end a free loop for the attachment of the supporting cords, while the other end

is coiled somewhat snugly about the lateral bars of the splint at D and E. The lateral bars to which the muslin strips are attached extend upward on each side of the leg, so that the two ends of the wire reach, the one to a point above the pubes, and the other, on the outside, nearly to the crest of the ilium. The bend of the splint at the knee permits slight flexion of the leg.

The distance from the foot of the splint to the bend in the knee is 56 ctm. (twenty-two inches). The suspending apparatus is composed of, first, the pulley A, fig. No. 1, which is fixed in a framework over the bed, or preferably, in the ceiling; secondly, the sliding block B and the cord B A C; thirdly, of the two cords D, C, E, and D′, C, E′, of equal length, and with a loop at each end for at-

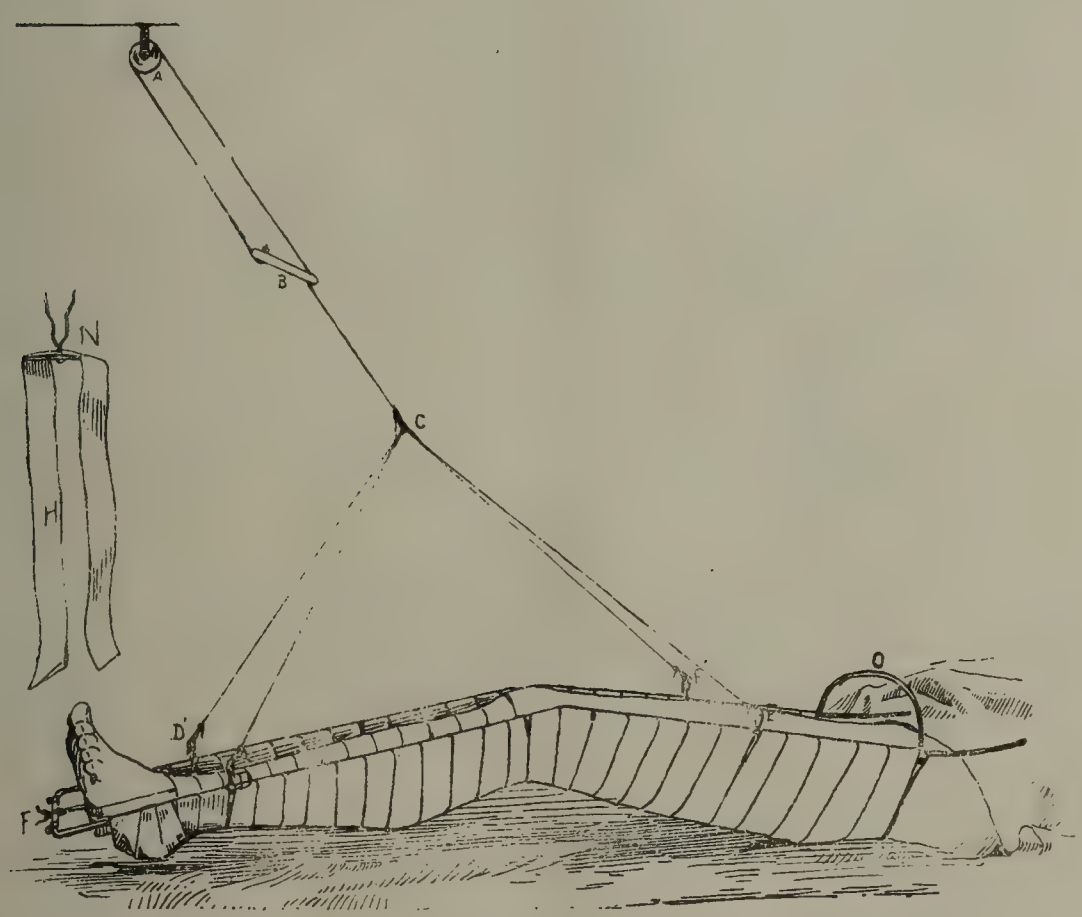

Fig. 1.

tachment to the wire hooks at D, D′ and E, E′. These cords are passed through a loop in the cord B, A, C, at its end C. The suspension of the leg and splint is readily accomplished by sliding downward the block B on the cord B, A, C. The extension is maintained through the adhesive strip H, which, extending from one tuberosity of the tibia to the other, across the board N at the sole of the foot, is fastened by a cord to the cross bar at F, and thus securely holds the leg in the splint. Through this medium the extending force is transferred from the splint to the leg. The board at the sole of the foot should be as wide as the adhesive strip, and about 7 or 8 ctm. (three and one-half inches) long. It then protects the malleoli from the lateral pressure of the adhesive strip through which the extending force is applied. The splint here shown as applied, fig. No. 1, is cheap and is readily made by any blacksmith.

The application of the Hodgen suspension splint is simple and, in skilful hands, painless. Suppose the leg, with its fractured fe-

mur, is resting upon the bed. A roller bandage is applied to the foot and ankle, to prevent swelling, excoriation, or tenderness, from the pressure of the bandage or of the adhesive strips on the malleoli. Then the adhesive strip H, with its foot piece and cord, is placed in position, an assistant grasps the foot with one hand, and, with the other hand under the knee, lifts the leg from the bed, while at the same time he makes steady extension of the femur. The surgeon then continues the application of the roller as high as the knee-joint, and thus secures more perfect adherence of the plaster to the leg. The leg is again allowed to rest upon the bed, but the assistant maintains moderate traction on the foot, so as not to relax extension of the fractured bone while the splint is put in position. A lateral arm of the splint is placed upon either side of the leg, and the cross-bar is brought close to the sole of the foot. The cord and block N, with the adhesive strip, is now fastened to the foot of the splint. Strips of muslin are passed under the leg, one at the ankle, one at the knee, and perhaps two at the thigh. These are secured by pins to the lateral arms of the splint, while it is held with its upper end so that the inner arm is above the pubes, and its lower end is on a level with the malleoli. The leg can now be suspended by attaching the cords D E and D′ E′, and adjusting the side

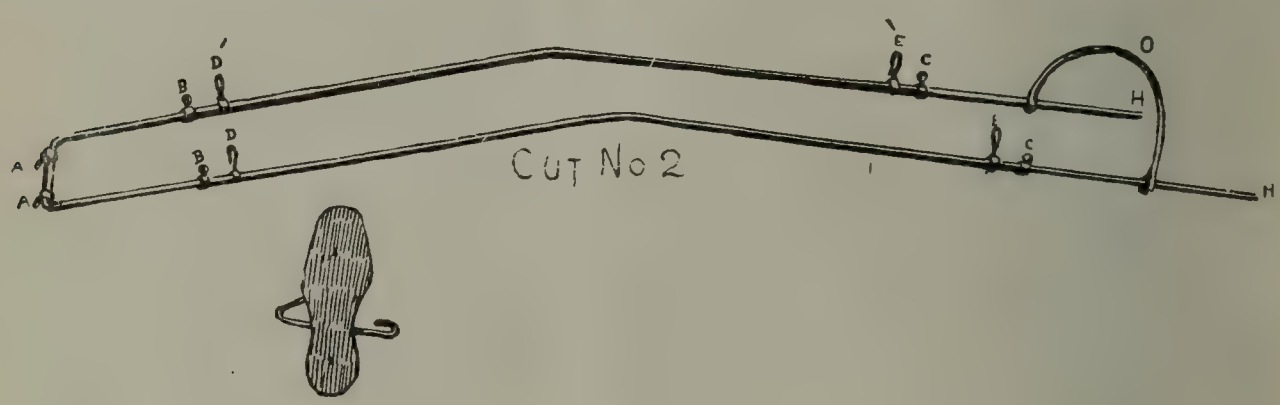

Fig. 2.

B so as to lift the splint and leg from the bed. The cradle of cloth strips upon which the leg is to rest, is now made complete by adding strips of muslin, and adjusting them to the outline of the leg as indicated in the cut. The upper end of the wire which is to be above the pubes, may be bent upward to permit greater freedom in the movements of the body. No special or violent attempt at adjustment is made, nor is it necessary, except where there is marked lateral displacement, as in some transverse fractures. The free swinging of the leg, and the efficiency of the extending force, secure a perfect adjustment in a few hours. The fracture sets itself. The degree of extension is regulated by the obliquity of the cord and the weight of the leg.

The splint as represented in Fig. 2, is more expensive, but can be adjusted to a leg of any size.

The lateral bars B and C are hollow square tubes, furnished with thumb-screws at their extremities, B, C. These tubes are of sufficient size to admit the terminal ends of the lateral bars, and by pushing in or pulling out the extremities of the lateral arms the length of the splint may be varied. Its width can also be changed by sliding the lateral arms into the hollow tube A, A, which is furnished with thumb-screws at A, A. The splint is fitted by sliding B, A and C, B to the proper point, and securing them by setting the thumb-screws at B and C. The hooks D, E, for suspending the splint, slide on the lateral bars B, C. The splint is used in the same manner as the one before described. The foot-piece P is to prevent passive extension of the foot. Its use is optional with the surgeon. Its chief utility is found in cases of compound fracture of the leg. The foot-piece here shown is a thin board fastened to

the heavy cross-wire, which is curved so that one end fits snugly around one of the lateral arms of the splint, and the other end is so bent as to encircle the other arm and maintain the foot-piece at its proper angle. Dr. J. Freund, of Champion, Mich., has devised a foot-piece which answers a good purpose. It is held in position by two transverse slips of wood fastened by thumb screws, and has the inclination of the foot piece determined by a third thumb screw which is fixed in one of the transverse slips.

If the pulley through which the cord passes is fixed in a ceiling which is 3 or 4 metres (9 to 12 feet) high, a perpendicular line dropped from the pulley should fall from 20 to 30 cm. (7 to 10 inches) beyond the foot of the adult patient. In the case of a child, where the weight of the leg is less, the obliquity of the cord should be greater. Or, to express it more accurately, the obliquity of the cord should be sufficient to make an angle of from 15 to 25 degrees with the perpendicular. If there is any tendency for the patient to slide toward the foot of the bed, it may be obviated by raising the foot of the bed by means of blocks. In the case of a child it may be well, in addition, to pass a cord loosely about the body under the arms, and fasten it to the head of the bed, to serve as a check to any great change in the position os the patient.

The degree of extension necessary to accomplish the result desired, may be determined in part by the sensations of the patient. The position of comfort is the one of safety, as extension is required only to overcome the contraction of the muscles. The counter-extending force is the weight of the body. Much less extension is required in such splints as suspend the leg and remove the resistence of friction of the leg on the bed, than is required when the leg rests upon the bed, and weight and friction are first to be overcome. It is never necessary, when using this splint, to apply, in the case of an adult (as recommended by Hamilton when speaking of other methods of making extension), twenty pounds as an extending weight; or, as he states it in his work on "Fractures and Dislocations," published in 1880, "one pound for a child one year of age, two pounds for a child two years of age, and so on, adding one pound for each year up to the twentieth." An extension of twenty pounds, applied through an adhesive strip to the leg, and pulling upon the knee-joint and femur, is a serious trial to the patient's endurance, and it taxes the surgeon's ingenuity to maintain steadily such a force.

The amount of extension required in this suspension splint is much less, being from three to ten pounds. This is all sufficient,for there is no friction to overcome, and so long as the patient maintains a position in bed approximating the one occupied when the splint was adjusted, there is no variation in the extending force. It is quiet, persistent, non-irritating, and effective. There is no perineal band to fret and worry the patient. The extending force is determined by two factors, and these are entirely within control of the surgeon, viz., the obliquity of the extending cord, and the weight suspended. The first can be varied by the relative position of the bed and the suspending pulley, and the latter can be increased, if desired, by placing sand bags across the lateral bars of the splint. The weight of the leg distributes some of the extending force to each of the muslin strips upon which it rests, and thus diminishes somewhat the traction upon the adhesive strip.

It seems difficult for some persons to understand how extension can be applied to a fractured thigh by direct traction upon the leg, without counter-extension through a perineal band. They fail to recognize the efficiency of the weight of the leg and the stabitity of the body, as a counter-extending force. The amount of the extending force that is transmitted through the adhesive strip in the suspension splint, may be measured by substituting a spring balance for the cord, which in the cut connects the block N with the foot of the splint. A small portion of the extending force is, however, transmitted through the strips which support the limb in its cradle, and those who wish can, by mathe-

matical formulæ, compute the extending force.

Professor Francis E. Nipher, of the Washington University, and Dr. A. K. Worthington, used the following formulæ for determining the extending force(the line D in the diagram (fig. 3), represents, approximately, the line of the splint and the femur):

The pull on the short cords, C E, and C E′, and also that on C D, and C D′ (see fig. 1), can be accurately measured. The angles *a* and *b* (fig. 3) can also be measured. The traction force along C E, and C E′, is represented by A, and that along C D, and C D′, by B.

The forces A and B being known, as also the angles *a* and *b*, we can readily calculate the horizontal components, F and F′. The resultant of F and F′ will represent the direct traction force exerted along the line D; or the amount of efficient extension applied in the line of the femur.

In a particular case, where the patient weighed 150 pounds,and the suspending cord, C (or in fig. 3, A, B, C) formed an angle of 15° with the perpendicular:

It was found that the pull...A =11.5 pounds.
And the pull.....B =10.5 "
The angle .....a =40°.
The angle.....b =75°.
Hence by trigonometry.....F =A cos. a.
And.....F′ =B cos b.
Whence by substitution.....F =11.5xcos.40=8.8 pounds.
" " .....F′ =10.5xcos.75=2.7 "
Therefore the resultant of....F and F′=6 1 pounds.

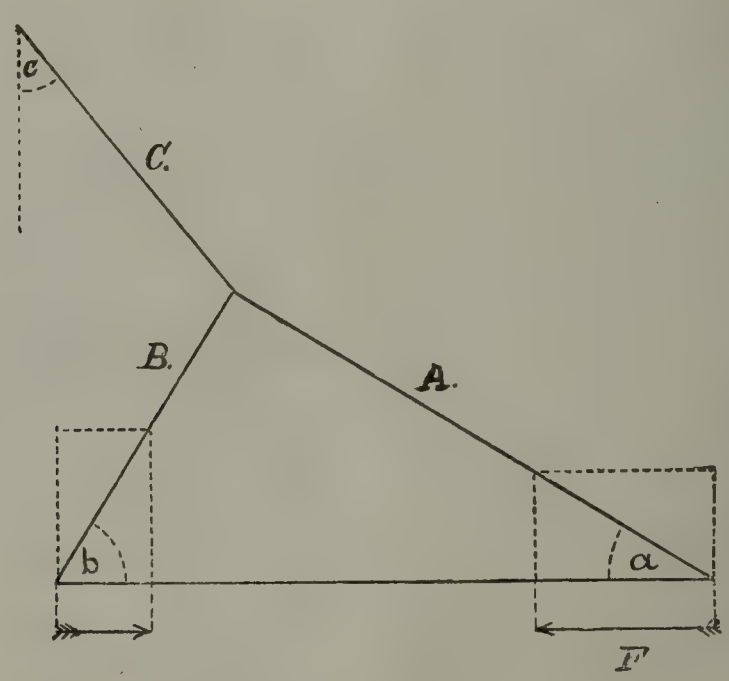

Fig. 3.

F and F′ act in different, opposing directions, hence their resultant is the difference between them, or 6.1 pounds, which represents the amount of the extending force applied to the femur in this case. If the angle C was increased to 36°, it was found:

That the angle..... a= 35.
" " ..... b=105,

and the force and pull on

the angle..... A=14 pounds.
" " ..... B=12.5 "

Here the forces F and F′ are exerted in the same direction, since the *b* is greater than a right angle, and their resultant is the sum of the forces which (by the same formula as before) is found to be 14.7 pounds. The weight of the leg was estimated at 21 pounds.

The loop C, in the cord B, A C (fig. 1), is loose and can be slipped along the cords D, C, E. and D′, C, E′, so that the angle made by these cords with the splint can be changed with the obliquity of the suspending cord, B. A, C.

The leg is open for inspection, and the supporting strips can be readjusted as the parts atrophy. The slight natural anterior

curve of the femur can be maintained. The circulation is undisturbed, the nutrition is not interfered with by the pressure of the retentive apparatus, and is as perfect as it can be during the enforced quiet. The leg can be kept cool or warm, as desired. The patient may sit up or lie down, as comfort suggests. The bed-pan can be used without disturbing the fracture, and the best possible result can be obtained, viz., no shortening and early union, without bed-sores or any of the constitutional complications which are liable to follow confinement in a fixed position.

The flexion of the knee is sufficient only to put the leg in a comfortable position, relaxing slightly the tension of the hamstring muscles and the gastrocnemius. The slight flexion of the thigh on the pelvis puts at rest the psoas and iliacus, and the rectus extensor of the thigh. The muscles are placed in a state of equilibrium.

The splint is well adapted to the treatment of all fractures of the femur, whether they are intra- or extra-capsular, through the trochanters, the shaft, or the condyles. Nor does the age of the patient interfere with its use, though a fixed dressing may be more convenient for children under six months or a year of age.

After a long and successful experience with the splint in private practice and hospital work, and after having observed its employment by the late Dr. John T. Hodgen during the last fifteen years of his life, I know of but one practical difficulty which arises in its universal and immediate use in all fractures of the femur. This objection pertains only occasionally to the fractures of the middle third of the bone in children. These exceptions are rare, extremely so, and if a perfect adjustment of the extending force to the necessity of the individual case could be obtained at once, they would be reduced to a minimum. The objection is found in the spasmodic contraction of the muscles, which at times is so frequent and violent, immediately after injury, that some lateral pressure is necessary to the comfort of the patient. This spasm may in part be controlled by lateral supports to the thigh, or by permitting the leg to rest upon the bed with extension applied after Buck's method. No form of dressing will uniformly control it. After this irritability subsides, the leg is more comfortably and more efficiently treated in the suspension splint. This clonic contraction of the muscles is more likely to be present if the extending force is in excess of the necessities of the case. The excessive tension acts as an irritant to the muscles.

The only obvious change effected by the motion resulting from the spasm is an increase in the amount of the provisional callus. It does not delay union but provokes by irritation an increased inflammatory deposit about the break. I can see no harm in this excess of callus in the femur, and it rarely occurs.

Fortunately these cases are rare. Clonic contractions will, in isolated cases, occur in any splint and under any plan of treatment, for no lateral support or compression can prevent the contraction which accompanies a muscular spasm.

Opiates are sometimes useful, in the case of nervous children for a few days after such an injury is received. The splint, and the manner of applying extension, afford the most perfect means of neutralizing the tonic contractility of the muscles, which so often determines shortening. The oblique suspension gives continuous and equal extension of an amount sufficient to accomplish a perfect result, without waste of any force, and it insures to the patient the most perfect liberty attainable by any known means compatible with comfort and safety.

The yellow fever epidemic continues in Florida. The fact that it has not spread to to the neighboring states speaks volumes in favor of quarantine regulations. The epidemic is considered a mild one, though in its mildest form it is a thing to be dreaded. At Jacksonville the death rate continues at from twelve to thirteen per cent.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, SEPTEMBER 22, 1888.

ATTENTION.

The REVIEW again makes its bow to an additional twenty thousand of readers over and above its regular subscribers. To those who know us it is not necessary to address any words of solicitation, but to the observer who makes our acquaintance for the first time we desire to say: Scan our pages well, and then compare them with any other journal in the country, and we are perfectly willing to abide by the decision. We recognize the fact that the column of scientific medicine and surgery is moving solidly and steadily forward, and we have ever striven and shall ever continue to strive to keep step with the progress of the procession.

We consider it a part of the duty of a live medical journal to present not only an abundance of original matter, but also to give an epitome of the matter furnished by other journals and to give in detail the items of news interesting to doctors. Without arrogation we feel safe in saying that we believe we deserve the title applied to us by many of our exchanges of being the "Live medical journal of the West."

To new acquaintances we say: Come, let us journey together; we can be mutually beneficial to each other. Send us your subscriptions and from time to time send us also a collated report of your experiences for our columns. In return we will fifty-two times a year carry to you glad tidings of the growth and development of our glorious science.

For full information as to terms see prospectus, advertising pages 5 and 6.

GREETING.

The members of the editorial staff of the REVIEW take special pleasure in greeting the members of the Mississippi Valley Medical Association. It is a matter of record that one of the objects which the REVIEW has long sought to advance, has been the growth of this association.

It is therefore with peculiar pride that we bid welcome to the good and true members who come from far and near to gather the fruit of work done in the past, and to sow good seed for future harvest.

We can rejoice together that this association has become so strong, has grown so large, is so important. After the first few years of vigorous childhood, it for a time declined, and many thought that it would die. It needed positive and strong treatment, and at length owing to a good constitution and healthy diet it began to gain in size and strength.

We need not to tell the result. Would you see it, "look around." No medical society is so important especially to the men of the Mississippi Valley as this; no association more attractive in its work and membership.

We congratulate you then as wise men who knowing a good thing when they see it have come to use the opportunity. Receive and give that all may profit. By your contributions of thought and experience, your remembrance of the work till we meet again, and most of all, by your faithful championship of the rights and reputation of this association which is entirely yours, may it be that the letters M. V. M. A. shall grow brighter with years, shall be the insignia of progress in our western ranks, the badge of union in council, and the stimulus to greater endeavor in the routine of practice.

THE BUSINESS OF THE MISSISSIPPI MEDICAL ASSOCIATION.

Time has become very valuable in the sessions of the Mississippi Valley Medical Asso-

ciation. The large number of papers promised has rendered the work of arranging the programme a difficult task.

Some papers must necessarily be read by title only; others of merit will receive but little discussion. Of course our St. Louis members will be generous, but even their sacrifice will scarely avail for the reading and discussion of all of the papers of our visitors.

Much can be done if the members will be punctual, will be concise in their remarks and aid the president in his endeavors to keep the scientific work up to time.

Fortunately most of the business affairs of the association are transacted by committees, and a limit has been put upon the time for papers and discussions.

It will not be long before the association will have to adopt one of two plans. Either we must have sections, or else papers will be presented in abstract only, when, after being discussed they may be published in full. The second is probably the better, and it seems as though it would be worth trying.

The Congress for the Study of Tuberculosis.

If a pathologist dead for twenty years, could come to life to-day he would find himself confronted on every had with new ideas and strange terms. Very rapid has been the advance of this department of science, and though the practical results have not always quickly appeared, yet it is none the less the foundation of medical progress.

While in the congress there was no strictly new thought advanced, yet there was a grouping of very recent ideas upon the subject of tuberculosis, which cannot but have a strong influence upon thinking men.

One of the most important propositions was that of Cornil who gave proof that the tubercle bacillus may penetrate the normal mucous membrane. In keeping with this thought came the conclusion of Nocard who insisted that all cows' milk should be boiled before being given to children. Especially should this be done if the glandular tissue of the animal had been invaded. As this is often difficult to determine, it is well to give the child the benefit of the doubt and to boil all the cows' milk which is used in infant feeding.

The generally accepted opinion was that bovine tuberculosis is much more common than is generally supposed and that the danger of its communication is great. Arlong advocated the seizure and destruction of tuberculous animals,for he believed that at least four in twenty diseased animals were capable of spreading the disease.

Tuberculosis in animals is not a difficult condition to diagnose, the evidence being parallel to the symptoms found in the human subject.

A very consoling declaration to those of us "who live in the malarial districts" was read by DeBrun, of Beyrut, who said that there is an antagonism between malaria and tuberculosis, and he was sustained by M.Picot, of Egypt.

Among the many valuable conclusions we find, that bovine tuberculosis is contagious, that it may be communicated to man, and that tuberculosis may be transmitted from one man to another.

Many papers were read upon the diagnosis of tubercle in the animal and the human subject and upon its treatment.

It is probable that the very means which have been advocated for the building up of children with poor assimilation and low vitality, may have been active agents in developing tuberculosis. Nothing is more common than to order for such a child or for an adult in similar condition, the free use of milk and plenty of underdone or even raw beef.

It is also likely that in some instances the milk or the meat used may have been from tuberculous animals. In such cases and indeed in all a wise scrutiny should prevail. If the disease is common in animals, the more need of it. If it is easy to determine so much the better.

In this and in insisting upon legal enactments regarding diseased cattle the congress has done great good, not only in France but throughout Christendom. Wm. Porter.

Uremia—Urine Toxemia.

While it cannot be said that the secrets of the pathogeny of the affection to which the term uremia has been misapplied, have at last been laid bare, still, if its investigation continues to be rewarded with the encouraging progress made of late, we are indeed far on the way toward the attainment of our primal object in its study—that of scientific and successful treatment.

Wm. Carter, in his recent Bradshawe lecture on uremia, treats of the subject in such a masterly and able manner that, doubtless, great impetus will be given to further experimental and clinical research in that direction.

The lecturer accounts, to a large extent, for the number of theories that have been offered to explain the condition which, for want of a better name, we call uremia, by the manifold and frequently antagonistic manifestations of its presence. And he believes, with Bouchard, that, instead of having any one cause for its production, such as edema of the brain (Traube), ammonemia, etc., many and various factors conduce, and, therefore, more than one theory may be correct in certain cases.

Thus, the supposition that cerebral edema and its consequent anemia control, by affecting different portions of the brain, the production of convulsions or of coma, was disproved as an unvarying truth, by actual measurement by weight of the relative proportions of fluid and solid constituents of the brain tissue, healthy and edematous. But a possible role played by this factor was shown by the following experiment: "M. Raymond first incised one of the inferior cervical ganglia in the rabbit, so as to deprive a cerebral hemisphere of vasomotor control, and then tied both ureters; but instead of the resulting uremic convulsions being as usual, bilateral, they were limited to the half of the body opposite to that of the operation. Yet the only difference between the hemispheres post mortem was that one of them appeared to be affected with very slight edema. Here there was a general uremic poisoning, followed by local symptoms, caused apparently by local vascular dilatation. Whether it was the scarcely noticeable edema caused by this dilatation, as M. Raymond thinks, that determined the unilateral convulsions, or as seems equally possible, the larger amount of poison which the dilated vessels allowed to act on one side of the brain, yet the facts remain that the convulsions were unilateral and that they were on the side opposite to the hemisphere whose vessels must have been dilated."

The ominous warning of Bartels and of nearly all later writers that it is dangerous to withdraw, too suddenly, anasarcous fluid, the "conservative dropsy," from cellular tissues by means of purgatives, hot baths, etc., because of the liability of precipitating large quantities of urea into the blood and overwhelming the system with its pernicious principles, he rejects, as being based on unfounded premises. In the first place the fluid in question is not rich in urea, as has been claimed; in the second, urea is not the cause of "uremia;" in the third, such accumulations of subcutaneous fluid frequently disappear rapidly, without exciting any bad symptoms; and of a family of four children coming within the observation of Dr. Carter, three died while at the height of a "conservative dropsy," while a fourth, treated with baths, hydragogues, etc., got rid of the dropsy, and, later on, of the disease also.

He ascribes the ill effects that sometimes follow the use of a hot bath to the influence of that same train of phenomena mentioned in the experiment related above, viz.: cerebral vaso-motor paralysis, vascular dilatation, increase in the quantity of poison-bearing blood, with its deleterious effects. Such results may be obviated by closely watching the effects of the baths, and, at the first indication of headache, muscular twitchings or other signs of bad import, by quickly removing the patient and sponging him with tepid water and vinegar.

Clinical observations have confirmed Dr. Carter in the belief that, in the progressively diminishing alkalinity, and, toward the end, actual acidity, in some cases of the blood and

other normally alkaline fluids of the organism, we may find an explanation of the symptoms.

He commends the experimental work of Bouchard, which has thrown so much light on the sources of, and fluctuations in, the toxicity of the urine. The latter gentleman has found that the sources of toxicity are fourfold, namely: (1) aliments, and more especially their potassium compounds; (2) the absorbed products of the intestinal putrefactions; (3) secretions, such as the saliva, bile, etc.; and (4) tissue disintegrations. Between their several sites of origin within the body, or their introduction into it from without, and the kidneys, these traverse the blood, and if not removed from it with rapidity, poison the tissues.

It is now determined that "the urinary poisons may have very different effects according to the times and circumstances of their formation, either stimulating or inhibiting the same cortical cells of the cerebrum, and thus causing at one time paralysis and at another convulsive movements in animals into whose vascular systems they are injected. It is not correct, therefore, to say as is said by Uribe, and implied by many writers, that 'the convulsions or the uremic dyspnea occur in paroxysms, with intervals of calm between them, while the cause which provokes them persists.' The cause does not persist, for it may and does differ from hour to hour." Now we can understand how paralysis and convulsions may succeed each other within the short space of a day; and to a similar cause may be referred the distressing attacks of asthma, occurring in connection with Bright's disease, for, as the author says, the whistling rales heard in attacks of spasmodic asthma are absent in these subjects. Furthermore, the means that will procure relief in such cases differ from those commonly used in spasmodic asthma.

As to the treatment, the pathology as understood to day would lead us to pay attention to the following points: "1. Cutting off one or another of the urinary poisons at their source, now that we know to some extent what these poisons consist of, and whence they are derived. Under this head we recognize the great importance (*a*) of limiting potassium salts both in food and medicine, (*b*) of employing the simplest and most easily assimilated diet such as milk, (*c*) of bowel disinfection, (*d*) of maintaining at its best the functional activity of the liver, (*e*) of care in the nature of nutrient enemata when these are required. 2. By directly or indirectly withdrawing or diluting the poisonous blood by (*a*) venesection, (*b*) purging, (*c*) sweating, (*d*) transfusion. 3. By burning up poison, by (*a*) active exercise, (*b*) the administration of oxygen or the oxydizers. 4. In antagonizing the poison, or at least overcoming special symptoms."

BRANSFORD LEWIS.

THE OCULO-MOTOR NUCLEI.

There are few more encouraging examples of the reward of patient scientific work than the results of the search for the centers or nuclear arrangements of the oculo motor mechanism. Physiological study and certain clinical observations have long ago led us to the conclusion that the various muscular movements of the eyes have their origins in a series of "nerve-nests," or centers, known to be located at various points in the gray matter that underlies the floor of the posterior portion of the third, the anterior portion of the fourth ventricles, and the canal by which they are joined—the iter.

The anatomical problem has been—and is; for, although so much has been determined there is yet much to do—to fix exactly the location of the centers governing the several separated and co-ordinated movements, thereby putting these physiological and clinical suggestions on a definite anatomical basis. As doctor Spitzka says: "Recent researches have brought our knowledge up to the point of almost ideal exactitude," so that if the iris alone is affected, we can say the lesion is here; if all the muscles, that it is there; if all the muscles supplied by the third nerve, that it is at another place, etc. The diagnostic

value of this increased accuracy of knowledge must appear to anyone on a little reflection.

To gain an acquaintance with this study needs a little refreshing of old anatomical knowledge and a following up at some length, of recent investigations. It is not our purpose in this short communication to make a review of this work, but only to draw the attention of those to it who have not yet become interested enough to discover its practical bearings; and, for the benefit of those who want to give the matter proper attention to furnish a list of some of the American authors, who, in the *Jour. of Nervous and Mental Disaases*, have recently contributed valuable articles on this subject.

Dr. E. C. Spitzka, the oculo-motor centers and their co-ordinators, July, 1888. Dr. M. Allen Starr, ophthalmoplegia externa partialis, May, 1888. Dr. E. C. Seguin, five cases of ophthalmoplegia, May, 1888. Dr. W. R. Birdsall, progressive paralysis of the ocular muscles, Feb., 1887. Dr. W. F. Mittendorf, associate external ophthalmoplegia, Feb.,1887. Dr. M. Allen Starr, thrombosis of the artery of the tegmentum of the crus cerebri, Feb., 1888. Accompanying these articles will be found copious bibiographical notes.

F. R. F.

The Death of Dr. Primm.

During the latter weeks of August the local profession was startled with the announcement of the death of Dr. Benjamin J. Primm. Although he was only twenty-seven years of age, his many talents and accomplishments and genial and gentlemanly character had gained for him a large circle of friends and acquaintances and a prominent professional position.

He died Saturday, the 25th day of August, of an acute cerebral trouble, the character of which was not altogether clear to his medical attendants. The writer knew him intimately and remembers conversing with him three years, or more, ago, a day or so after he had fallen on the street in a peculiar syncopal condition.

Dr. Primm at that time was much worried about the matter, not knowing how to account for it. This was perhaps the first of a series of premonitions that have since occurred, some of them known to his relatives and friends. Last spring he had an attack of unconsciousness, etc., during which his life was despaired of; but he rapidly recovered and during the summer his health had been, for him, unusually good, so that he was preparing to resume his work at the St. Louis Medical College, where he filled the chair of anatomy.

He graduated at the St. Louis Medical College in the class of 1881. His extensive knowledge of anatomy as a student was known even beyond the immediate college circle. It was his devotion to this study that gained for him the chair of anatomy, which he had filled for two years.

Dr. Primm was at one time, for a few months, the association editor of this journal and devoted much care and attention to its interests.

F. R. Fry.

Poisonous Effects of Cigarette-Smoking.

Dr. William L. Dudley, of Nashville, Tenn., has performed a number of interesting experiments to determine wherein the smoking of cigarettes is injurious. In an article in the *Medical News*, he says that besides combustion, destructive distillation takes place in the pipe, cigar, or cigarette as the result of the heat and the exclusion of the oxygen of the air which has been completely used up in passing through the red-hot burning tobacco, in front of that which the fire has not yet reached.

The products of this distillation are ammonia, nicotianine, some nicotine and many other products of minor importance.

The products of the combustion are carbon dioxide and carbon monoxide. The former produces death by suffocation, the latter by changing the oxyhemoglobin into carbonic-oxide-hemoglobin.

By placing mice in a bell-jar, having tubes so arranged that cigarette smoke could be

drawn into the jar, it was found that the animals died in a short time from carbon monoxide poisoning. From his experm ents to Dr. Dudley drew the following conclusions:

From these experiments I feel justified in drawing the following conclusions:

1. That carbonic oxide is the most poisonous constituent of tobacco smoke.

2. That more injury results from cigarette than cigar- or pipe-smoking, because, as a rule, the smoke of the former is inhaled.

3. That cigarette smoking without inhaling is no more injurious than pipe or cigar-smoking.

4. That the smoke of a cigar or pipe, if inhaled, is as injurious as cigarette smoke inhaled.

5. That the smoke from a Turkish pipe, if inhaled, is as injurious as that of a cigarette inhaled.

He thinks the manner of smoking has much to do with the poisonous effects of cigarettes. With the cigar and the pipe the smoke is drawn into the mouth and expelled without passing into the lungs, whereas cigarette smokers inhale much of the smoke, allowing it to pass into the lungs.

Induction of Premature Labor.

In a lecture on this subject (*N. Y. Med. Jour.*,) Dr. Wm. M. Polk said, that this operation was much more common than formerly. In former times it was thought that the mother's life should not be considered so long as she could be delivered of a living child; and in France and some other countries this rule still holds good. In this and in most other civilized countries the mother's life is considered of greater value than that of the child.

He enumerated many of the causes which tend to threaten the life of the mother, most of them by producing extreme exhaustion.

Dr. Polk advises that consultation be obtained in every case, where it is possible, before determining such an important question. He gave the following rules as to the length of time one can wait.

"If you have a woman with a pelvis only two inches and three quarters in diameter antero-posteriorly, you shonld induce premature labor at the seventh month. If you have a conjugate diameter of three inches, you can put off the induction of premature labor to the thirty-third week; if the diameter is three inches and a quarter, you may wait till the thirty-fourth or even the thirty-sixth week; and if the diameter is three inches and a half or over, I think you can safely let the pregnancy go on to term,and the chances are that by performing version you will then be able to extract the child alive. These are the general rules for determining the best time to induce premature labor in cases of deformity of the pelvis; but when the deformity is not in the bony structures but in the soft parts, remember that the impeding mass will now bear a certain amount of compression, and so in estimating the diameter of the outlet you should introduce your hand into the vagina and compress the swelling as much as you can, and then measure the distance between it and the opposite wall of the pelvis while you keep up the pressure on the tumor."

In regard to Bright's disease as a complication, he says, the development of edema of the lungs in connection with convulsions of albuminuria is a complication from which few escape with their lives. In those cases in which pregnancy is complicated with kidney disease, the physician is brought face to faee with one of the greatest responsibilities that he is ever called upon to bear, in determining the exact danger to which his patient is subject. He says so long as the patient is passing plenty of water and the specific gravity remains high even though it contains a very large amount of albumen, if she does not complain of persistent headache, she is doing well enough and by well-directed therapeutic measures she may be brought through to full term.

Subscribe for the American Journal of Ophthalmology. The only monthly journal published on the subject. Sample copies sent on application. Address J. H. Chambers & Co., Publishers, St. Louis, Mo.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

Our friend from Winfield, Arkansas, who developed the idea that severity of morning sickness indicated that the coming child was to be a girl may be interested in the following from the *Med. Age*:

"The claim that the sex of the child may be foretold by the presence or absence of the morning sickness on the part of the mother, is about on a par with the belief, quite prevalent among old women, that when the mother is troubled with heart-burn the child's hair will be curly, and *vice versa*."

* * *

Many medical men manifest a complete distaste for political affairs and assert a thorough contempt for the "political doctor" and while in the main they are right it is questionable whether it is not the physician's duty to interest himself to the extent of assisting in the selection of proper men to fill public positions. In an excellent article upon this subject Dr. John J. Mulheron of Detroit says:

"The objection to the physician taking part in the politics of his country, based on the supposed incompatibility of politics and medicine, is weak and untenable. When such men as Virchow, Playfair, Semmola and others, prominent in the councils of their respective countries, can continue their scientific studies, to argue that a man cannot discharge the duties of citizenship and at the same time practice medicine, is to argue a very weak mental caliber on the part of the doctor. We believe that a greater practical interest on the part of the physicians in the politics of the country would conduce to their individual as well as their collective welfare. It is not all of the practice of medicine to be versed in the teachings of the schools. A knowledge of human nature, the ability to judge character, or, to put it in the vernacular, "the ability to size a man up," is an important requisite to success in this calling,and and certainly there is no school equal to that of politics for qualifying a man in this direction. Our physicians, as well as our clergymen,would be all the better qualified for their vocations were they to mingle more in the practical affairs of life."

Yes, the knowledge of human nature, the ability to judge character, or as Dr. Mulherron pointedly puts it in the vernacular, "the ability to size a man up," is one of the requisites to practical success in any calling.

* * *

The physicians of St. Louis and Missouri have during the past year demonstrated the influence they may wield in politics if they but act with unity of purpose. They have the right to feel that their voice which was so enthusiastically brought to bear upon the recent canvass for the governorship in this state was not an unimportant factor in the success of Mayor Francis.

* * *

The wonderful success and popularity of Col. Patrick S. Gilmore, the leader and commander of the great Gilmore band is due to the possession of a thorough knowledge of music, a soul full of melody, a heart full of love for man, a head full of an ability "to size up" men, bodies of men and mixed assemblages. Theodore Thomas is a classically cold-blooded master of the highest and most artistic music, but he compares with Gilmore as the severe soulless scientist does with the practical physician filled with a love of humanity. The one to put it in the vernacular, "gets there:" the other does not.

* * *

Codeine, one of the officinal alkaloids of opium ($C_{18}H_{21}NO_3H_2O$) is in many cases of value in relieving abdominal pains for the reason that it does not constipate by lessening peristaltic action. It may be given in doses ranging from a half grain to one or two grains every hour or as may be demanded. It does not produce as great a degree of cerebral obtundity as does morphine.

Potter reports alarming symptoms as having been produced in children by $^1/_6$ of a grain.

The proper way to administer this or any

of the other alkaloids of opium to children is not to administer them at all or to give them in very infinitessimal doses well diluted and frequently.

* * *

Dr. O. D. Todd, one of the most popular, successful and eminent physicians of the state of Kentucky, will be in attendance upon the Mississippi Valley Medical Association in this city. September 25, 26 and 27. Dr.Todd is not a benedict but he has "benedicted" to a fondness for the fair sex all his life—he is a regular Apollo in face and figure, in fact he is known as the Appolo naris Belvederus of Kentucky.

* * *

Antifebrine is daily developing itself in my observation as a most valuable remedy. During the past week a pronounced case of gout (in both toes) in patient 76 years old, who has suffered with acute attacks of great violence at intervals for many years, was relieved by five grain doses every two hours in solution with brandy to avert the depressing effects. At the end of twenty-four hours all suffering had ceased, and all evidences of inflammation about the joint had vanished.

One blue bird does not make a summer, nor one flower a bouquet, but the fact remains that an unusually severe attack of gout was removed by magic almost and without any opiate through the medium of antifebrine, within a few hours, whereas the suffering continued in all previous attacks for a number of days. Will the readers of the Review report their experiences with the drug in this direction.

By the way, I wish to remark that while I do not believe antifebrin is as depressing as antipyrine, yet it is not devoid of danger and should be given always in conjunction with some diffusible stimulant.

* * *

The trade-doctor (he who practices physic for revenue only) is not unlike the trade-dollar in that he falls below the standard in the matter of weight of the true metal.

* * *

The modern novel is nothing if not realistic when it comes to a matter of description. Witness the following from "The Quick or the Dead," by that wildly passionate, hot and fuming child author of the South, Amelia Rives, viz. (describing the emotions of a young widow who finds herself for the first time since her bereavement in the room formerly occupied by herself and husband): "At first she was not conscious of any especial emotion, as she bent against the cold linen of the turned-back bedclothes; she had no particular sensations either of happiness or unhappiness; but presently vast waves of passionate regret, and longing, and rebellion, surged over her, each one as it swelled and formed, more vast and annihilating than the other. The undertow seemed dragging her down, down. God's imagined face took on a horrible grinning. The ministering angels seemed deformed creatures who writhed and twisted, and uttered wanton gigglings as they circled about the throne after the fashion of the witches in 'Macbeth' about the caldron. Nothing seemed good, nothing seemed kind. She could not even think of her husband as having existed. He was a mere mass of repulsive formlessness in a slimy wedge of earth; perhaps he was not even that. She imagined his ghastly skeleton tricked out in all the mockery of fashionable attire. What delightful, smart, of-the-world-worldly coats he had worn! Why, if he were a skeleton now one could see his tailor's name in gilt letters through his spinal column! Ha! ha! ha! Ha! ha! ha! She had laughed silently at first, then in a choking whisper, then in a ringing peal of sound that clashed through the silent house, chilling the blood in Martha Ellen's rigid black body (the sleeping colored maid)." The above may not be medical but it is certainly anatomical. Fancy a delicate and sensitive widow looking upon the skeleton of her husband in his favorite suit of clothes, and reading his tailor's name in gilt letters through the spinal column! ugh!

* * *

In another part of the Review will be found the perfected programme of the com-

ing meeting of the Mississippi Valley Medical Association in this city September 25, 26 and 27, 1888. An effort has been made to furnish a *menu* to satisfy the appetite of all classes and conditions of doctors.

From ten o'clock in the morning until five o'clock in the afternoon papers and discussions will fill the time. No paper will be longer than twenty minutes, and no one will be permitted ta speak longer than five minutes upon any one subject. Dr. Reynolds has plenty of backbone, knowledge of parliamentary law, and can be depended upon to enforce the rules.

* * *

All the indications point to a full attendance of the representative men around and about us, among whom may be mentioned Griffith, Lewis, Fulton and their confreres of Kansas City, Boulware, of Butler, Middlekamp, of Warrenton, Mathews and Brooks, of Carthage, and others from grand old Missouri. Fairbrother, Lemen, Haskell, Brower, Delaskie Miller, Chas. Warrington Earle, Bishop and others of Illinois.

Dawson, Pres. A. M. A., from Cincinnati; Harvey, Cook, Hays, Woolen, Browning, from Indianapolis, E. A. Wood, W. H. Daly, Frank Woodbury and the courtly Pancoast, from Pennsylvania, as well as Mathews, Wathen, Dixon, McCormack, McMurtry, Bailey, Bloom, Stuckey, Bullock, Grant and Reynolds, of Kentucky.

Milton Josiah Roberts, the brilliant orthopedic surgeon of New York city, as also surgeon general Wm. A. Hammand appear upon the programme.

* * *

The many friends of Dr. A. Wetmore, of Waterloo, Ill. (who, it will be remembered, was thrown from the train by accident on his way to the Ninth International Congress at Washington one year ago) will be delighted to know that he has entirely recovered his health. He will attend the M. V. M. A.

* * *

The brilliant, breezy, lurid, lucid, lucifer-match who runs the interesting red-backed medical journal an the banks of the Kaw is keenly sarcastic, satirical, sanguinolent and scientifically severe. He is deserving of the sincerest sympathy.

To him who daily casts out upon the waters of life the bread of scornful and cutting words, there can return nothing but a harvest of barren regrets. Had I a voice, a persuasive and pervasive voice, I would remind him that unkind words can never die. They will come back to haunt one when least expected. Look for the good, the true and the beautiful. Be not ever on the look-out for flaws, blemishes and the disagreeable, for if you are, you will surely find them. One is pretty apt, if earnest and energetic, to get that which he goes after in this world. While taking in life's daily landscape, linger upon the pleasant spots and hurry past the imperfect. The disposition to cut to pieces and dissect grows upon one unless it be fought. Of all sad things of tongue or pen, the saddest of all is the man who is ever on the alert for nuggets of naughtiness presented by others.

Dr. Von Eiselsberg, of Vienna, produced tetanus in two rabbits by inoculating them with bacterial cultures made from material taken from a splinter removed from a woman's hand. The splinter had remained in the hand about four months. On the twelfth day after the introduction of the splinter into the hand, the woman was seized with typical symptoms of tetanus, which lasted four weeks.

Annals of Suegery. A monthly review of surgical science and practice. Edited by L. S. Pilcher, A. M., M. D., Professor of Clinical Surgery, New York, and C. B. Keetley, F.R.C.S., Senior Surgeon to the West London Hospital. This is the only monthly journal in the English language devoted exclusively to surgery. It contains over 1000 large octavo pages per annum, and is finely illustrated.

Send for sample copy. See prospectus on pages 7 and 8.

CORRESPONDENCE.

A CASE OF HYSTERIA IN THE MALE.

LORAINE, ILL., Sept. 10, 1883.

EDITOR REVIEW.—I report this case firstly, because snch cases are rare; and, secondly, to show that, although there may be no danger from the disease itself, complications must be watched and met.

A. B., æt. 28, single, of English parentage, usually of good health, but of a quiet and melancholy disposition. I first saw the case in January, 1887, through the kindness of Dr. J. S. Akins, of this place, who had treated him during three or four previous attacks. Dr. Akins saw the patient the day before and his condition was unchanged. About every twenty minutes there were convulsions, and then the muscles became contracted and the limbs rigid. He sometimes assumed a position of opisthotonus, and there would be stertorous breathing, the heart's action becoming rapid and weak. Between the convulsions the muscles were relaxed, and fld. ext. lobelia was given till nausea was produced. The convulsions became less severe till the third day, when they ceased. He made a rapid recovery with the aid of tonics.

Dr. Akins treated him for a less severe attack in August, 1887.

On August 31, 1888, a team of horses ran away from the patient. He exerted himself in their capture, but nothing unusual was noticed in his actions till supper when his parents saw that he was very nervous. He retired at eight o'clock, and a few minutes later his sister was attracted by his loud breathing. I was called and found him perfectly rigid with his jaws locked so tightly that I could not force them open without danger of doing harm. Instead of convulsions there were only tremors at short intervals with stertorous breathing. I gave hypodermic injection of morphia, and left him till morning.

When I returned his condition was unchanged, except the muscles or the jaws seemed less rigid, and we succeeded in giving him water and medicine. In the evening the lower parts of both lungs were congested, and I applied a large blister. The following day the lungs were clear. Sept. 3, he ate some and began to talk again, and Sept. 4, he was able to come to town and settle his bill.

D. D. STEINER, M. D.

MINNEAPOLIS, MINN., Sept. 5, 1888.

EDITOR REVIEW.—Are "Membranous Croup" and Diphtheria Identical? No.

I have just read with considerable interest Dr. I. N. Love's paper on the affirmation of this question, and must say that I am yet far from being convinced in regard to his position of the unity of those affections.

Indeed, I have read very much from our highest authorities on this mooted subject during the past quarter of a century, both pro and con, and have constantly been investigating and comparing my own clinical experience, and I am compelled to say, after the best observation and reasoning of which I am capable, for now about thirty years of active practice, mostly in country and villages, and extending over a wide range of latitude and longitude (for I have now done a general practice over half a dozen different states), I repeat that after my hair has grown white in the investigation, I am to-day as positive that we do find a membranous laryngitis ("true croup") which is very distinct from, and probably in no way related to diphtheria, as I am of any fact within the whole range of pathology.

There are many mooted points in medicine. It is yet far from being a fixed and determined science. There are many important points upon which equally able men have always honestly differed, and this seems to be one of those, for certainly our greatest pathologists are yet arrayed on both sides of this question. Observing these things while yet young in the medical profession, I readily concluded that the only way to acquire fixed and definite views of my own was to endeavor to acquire all possible knowledge from long years of patient and unbiassed observation at the bedside of my patients; this I have en-

deavored to do, and with the aid of the very best light around me.

And no wonder that a man should be inclined to speak rather dogmatically (or positively, if you don't like that term) on these subjects, after over thirty years of patient and close individual investigation.

I have a very high regard for the opinions and professional ability of Dr. Love. We all know him by his frequent and valuable contributions to medical literature. I doubt not his experience has been co-existent with my own, and his hair may be as white as mine in the service. Nay, more, he may have had greater facilities for clinical investigation of this subject in city and hospital practice, but allow me to express a sincere doubt if that is the very best place to investigate and mature conclusions in all points in medicine, and especially on this subject. Certainly if pathologists and theorists have failed to decide for us, are we not then justifiable in appealing to clinical experience to decide?

If Prof. Love has seen "membranous croup" (almost always fatal) occasionaly develop in the sparsely settled districts of the far West, even before diphtheria was known (except very imperfectly ln the extreme East), if he has seen, as I have, an occasional case of membranous croup in localities where diphtheria is yet a stranger; if he had observed, as I have, that it is never, never contagious (or infectious), no matter how great the exposure or how unsanitary the environments; if he has observed that it never presents the constitutional symptoms of diphtheria, and is never followed by its now well known sequelæ, he may then well doubt the correctness of his conclusions. Dr. Love may say (if he reads this letter) that it is nothing but a dogmatic iteration of negatives. So it is; but, remember, I have taken the negative of the subject under consideration.

Very respectfully,

C. G. Seagle.

Contributors to medical literature are constantly presenting things as new that have long been known to others. A note in the *Med. Rec.*, on a way "To Facilitate Catheterization in Women" called forth a half dozen or more replies to the effect that the method had been employed by various physicians for the past five or ten years. This however reflects no discredit on the physician who made the note referred to, provided he is not overanxious to claim priority. The probability is that there are more practitioners who know nothing of the method, than there are of those who do know of it. Nowadays it is not altogether safe to boldly claim priority as the discoverer of anything new in medicine or surgery till all the accessible literature has been searched. It is far better to publish the facts and allow others to tell of the good you have done the human race. Quibbling over priority is much too common.

Lawson Tait says we should discuss the principles upon which we operate and not the persons who do the operating.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION

Annual meeting, September 25, 26, and 27, 1888, Pickwick Theatre, Washington and Jefferson Aves., St. Louis.

Officers and Committees of the Association.—President, Dudley S. Reynolds, M. D., Louisville, Ky.; Vice-Presidents, A. M. Dunlap, M. D., Springfield, Ohio, Young H. Bond, M. D., St. Louis, Mo.; Secretary, J. C. Gray. M. D., Chicago, Ill.; Treasurer, A. H. Ohmann-Dumesnil, M. D., St. Louis, Mo.

Committee on Credentials.—Nicholas Guhman, M. D.,St. Louis, Chairman, Drs. Dan. T. Thompson, Indianapolis, Ind, S. W. Marshall, Sparta, Ill, Wm. Bailey, Louisville, Ky., H. H. Middlekamp, Warrenton, Mo.

Judicial Council.—Two years.—Drs. Joe. M. Mathews, Louisville, Ky., Thos. B. Harvey, Indianapolis, Ind., H. C. Fairbrother, East St. Louis, Ill, J. J. Miller, St. Louis.—One year.—Drs. C. E. Comegys, Cincinnati, O., Geo. F. Gill, St. Louis, Mo, E. C. Lemen, Upper Alton, Ill.

The program will be as closely adhered to as possible. Papers must not exceed twenty minutes. Discussions will be limited to five minutes for each member.—(Constitution, Article II, Section, II.)

COMMITTEE OF ARRANGEMENT.—Drs. I. N. Love, Chairman, N. B. Carson, Young H. Bond, J. R.Lemen, A. H. Ohmann-Dumesnil, Henry H. Mudd, H. Tuholske, Spencer Graves, 'Robert L. Thomson, Frank R. Fry, R. M. King, H. C. Dalton, A. H. Meisenbach.

REGISTRATION COMMITTEE.—Drs. R. L. Thomson, Chairman, A. H. Ohmann-Dumesnil, A. B. Shaw, E. E. Furney, Henry Schwarz.

TRANSPORTATION COMMITTEE.—Drs. William Porter, Chairman, Warren B. Outten, John L. Hornsby.

FINANCE COMMITTEE.—Drs.YoungH.Bond, Chairman, Bransford Lewis, Henry Schwarz, Benno Bribach, Jno. B. Shapleigh, Geo. F. Hulbert, Willis Hall, Frank R. Fry, Waldo Briggs, J. R. Lemen, A. H. Meisenbach, F. D. Mooney, Frank A. Glasgow.

RECEPTION COMMITTEE.—Drs. J.R. Lemen, Chairman, J. B. Johnson, P. G. Robinson, W. M. McPheeters, Gratz A. Moses, H. N. Spencer, E. M. Nelson, W. G. Moore, W. A. Langan, C. H. Dixon, L. A. Lebeau, H. L. Wolfner, Daniel Kuhn, L. E. Newman, M. D. Jones, J. H. Bryan, A. B. Shaw, A. C. Robinson, P. D. Connolly, J. Steer, G. Homan. H. E. Ahlbrandt, O. L. Forster, J. C. Lebrecht, Wm. Conrad, J. J. Miller, E. Borck, A. Barch, W. K. Bauduy, C. M. Riley, L. Atwood, W. C. Green, L. Hauck, A. B. Barbee, E. Chancellor, G.W.Broome, J. W. Williamson, G. W. Cale, W. Coles, Hugo Auler, E. M. Powers, J. Grindon, P. Y. Tupper, B. Bribach, E. Hauck, G. Carson, J. K. Bauduy, E. H. Gregory, J. M. Scott, J. S. B. Alleyne, W. E. Fischel, H. G. Mudd, L. T. Stevens, Henry Fisher, F. J. Lutz, G. F. Dudley, A. F. Bock, J. G. Ehrhardt, J. B. Pritchard, H. McKellops, B. M. Hypes, T. E. Holland, C. Lane. M. C. Starkloff, F. M. Rumbold, A. Fuhrmann, S. L. Barker, A. S. Barnes, J. Baron, J. H. McEntyre, C. V. F. Ludwig, L. Bremer, J. W. Vaughn, F. Eversoll, W. V. Kingsbury, A. A. Bradley, W. G. Priest; H. Jacobson, F. A. Glasgow, J. H. Leslie, F. G. Williams, Wm. F. Kier, and G. S. Miler.

TUESDAY, SEPTEMBER 25, CALL TO ORDER AT 10 A. M.

Prayer by Rev. J. G. Merrill.

Welcome, on behalf of the City of St. Louis, by Hon. D. R. Francis, Mayor.

Welcome, on behalf of the Profession, Dr. L. C. Boislineire.

Address of the President—Dr. Dudley S. Reynolds.

Report of the Committee of Arrangements. —Dr. I. N. Love.

Official reports.

PAPERS.

Yellow Fever.—C. E. Comegys, M. D., Cincinnati.

To Open Discussion.—Wm. Baily, M. D., Louisville; J. H. Rauch, M. D., Illinois State Board of Health; Surgeon-Gen. J. B. Hamilton.

Uniform Medical Legislation.—F. A. Fisher, M, D., Minn.

Hebephrenia.—Wm. A. Hammond, M. D., Surgeon General U. S. A. (retired).

Cholera Infantum.—By R. B. Tyler, M.D., Joplin, Mo.

Discussion on Infant Feeding (Participants limited to ten minutes).—J. A. Larrabee, M. D., Louisville, Ky.; E. A. Wood, M. D., Pittsburgh, Pa.; J. S. B. Alleyne, M. D., St. Louis; Frank Woodbury, M. D., Philadelphia; Geo. Wheeler Jones, M. D., Danville, Ill., I. N. Love, M. D., St. Louis.

TUESDAY, SEPTEMBER 25, 2.30 P. M.

Diseases of the Middle Ear.—C. H. Beard, M. D.. Chicago.

A Typical Case of Mastoid Disease.—S. S. Bishop ,M. D., Chicago.

Report on Opthalmology,—J. Morrison Ray, M. D., Louisville.

Retinitis Albuminuria.—Wm. Dickinson M. D., St. Louis.

Consanguineous Marriages.—A. W. Spain, M. D,, Terre Haute, Ind.

Exopthalmic Goitre, Treatment by Strophanthus.—D. R. Brower, M. D., Chicago.

Pyæmia.—J. J. Brown, M. D., Troy, Ill.

Diphtheria.—C. R, Early, M. D., Ridgeway, Pa.

WEDNESDAY, SEPTEMBER 26, 9.30 A. M.

Surgical Treatment of Spinal Disease.—Milton Josiah Roberts, M. D., New York.

Obscure Rectal Diseases.—Joseph M. Mathews, M. D., Louisville.

Contusions and Lacerations of the Kidneys.—Nephrectomy.—H. H. Mudd., M. D.. St. Louis.

Absorption of Water by the Colon, and its Therapeutic Uses.—G. J. Cook, M. D., Indianapolis.

Hydrogen Gas in the Diagnosis of Intestinal Obstruction.—Arch. Dixon, M. D., Henderson, Ky.

Perforating Ulcer of Duedenum.—J. K. Emerest, M. D., Atlantic City, Iowa.

Abdominal Section (Cases).—H. Tuholske, M. D., St. Louis.

Laparotomy for Wounds of the Intestines (Cases).—H. C. Dalton, M. D., St. Louis.

To open Discussions.—Drs. W. W. Dawson, President of the American Medical Association, Cincinatti, W. H. Pancoast, Philadelphia, H. O. Walker, Detroit, L. S. McMurtry, Danville, Ky., A. M. Owen, Evansville, Ind., N. B. Carson, St. Louis, C. W. Ladd, Cannelton, Ind., Joseph Eastman, Indianapolis, J. D. Griffeth, Kansas City, W. V. Kingsbury, St. Louis.

WEDNESDAY, SEPTEMBER, 26, 3.30, P. M.

Laryngitis.—W. H. Daly, M. D., Pittsburgh, Pa.

Benign Laryngeal Growths.—William Porter, St. Louis.

Deflections of the Septum Nasi.—T. Hunt Stucky, M. D., Louisville.

Naso-Pharyngeal Catarrh.—G. V. Woolen, M. D., Indianapolis.

Chronic Pharyngitis.—Townsend Porter, M. D., St. Louis.

Cleft Palate and Hair-lip (Case).—R. M. Funkhouser, M. D., St. Louis.

Nature and Cure of Psoriasis.—Franklin Hays, M. D., Indianapolis.

The Recent Epidemic of Small-pox at Moberly, Mo.—Joseph Grindon, M. D., St. Louis.

Practical Points in Dentistry for the General Practitioner.—Wm. Conrad, M. D., D. D. S., St. Louis.

THURSDAY, SEPTEMBER 27, 9:30 A. M.

Are Immediate Amputations Justifiable?—M. H. Middlekamp, M. D., Warrenton, Mo.

Surgical Treatment of Fractures of the Patella.—F. J. Lutz, M. D., St. Louis.

Can a Diseased Fallopian Tube be Treated Through The Uterus?—T. B. Harvey, M. D., Indianapolis.

Removal of Uterine Appendages. Double Fallopian Tube. (Case.)—F. A. Glasgow, M. D., St. Louis.

Report of Seven Cases of Vaginal Hysterectomy.—J. E. Etheridge, M. D., Chicago.

Mechanical Obstruction in Disease of the Uterus.—G. F. Hulbert, M. D., St. Louis.

Lacerations of the Perineum.—H. S. Hill, M. D., Springfield, Mo.

Management of Labor in Cases of Highly Contracted Pelvis.—H. Schwarz, M. D., St. Louis.

Premature Discharge of the Waters as a Cause of Dystocia in Primipara.—L. J. Mathews, M. D., Carthage, Mo.

Chloroform and its Dangers.—F. S. Bullock, M. D. Louisville.

Mineral Waters.—A. B. Shaw, M. D., St. Louis.

THURSDAY, SEATEMBER 28, 2:30 P. M.

Conditions which Precede Serious Lesions of the Kidney.—C. S. Bond, M. D., Richmond, Ind.

Excision of Chancre.—I. N. Bloom, M. D., Louisville.

Multiple Chancre of Hard Palate.—A. H. Ohmann-Dumesnil, M. D., St. Louis.

Etiology of Urethritis.—H. J. Reynolds, M. D., Chicago.

Complete Hypospadias (Operation.)—H.H. Grant, M. D., Louisville.

Clinical Notes of Rheumatic Neuralgia.—R. F. Brooks, M. D., Carthage, Mo.

What is It?—D. S. Booth, M. D. Sparta, Ill.

How Micro-Organisms Enter the Body.—G. M. Kreider, M. D., Springfield, Ill.

Essentials in the Treatment of the Morphine Habit.—L. Bremer, M. D. St. Louis.

Disturbances of the Vaso-Motor System.—W. A. Jones, M. D., Minneapolis, Minn.

Treatment of Melancholia.—J. L. Gray, M. D., Chicago.

Alcoholism.—J. K. Bauduy, M. D., St. Louis.

Chinical Study of Alcoholic Neuritis.—F. R. Fry, M. D., St. Louis.

ENTERTAINMENTS.

TUESDAY EVENING, Sept. 25.—Excursion to Kensington Gardens, via St. Louis Cable and Western Railway.—Fall of Pompeii.—Display of Fireworks.

WEDNESDAY EVENING, Sept. 26.—Receptions, 8 to 11 P. M. Mr. and Mrs. R. C. Kerens, 36 Vandeventer Place; Mr. and Mrs. J. T. Drummond, 3631 Delmar Avenue; Dr. and Mrs. N. B. Carson, 3152 Pine St.

THURSDAY EVENING, Sept. 27.—Reception at the Exposition, Fourteenth and Olive Streets.—Special Concert by Gilmore's Band.

SELECTIONS.

THE FLY AS A CARRIER OF DISEASE.

It is a popular belief that malignant pustule and certain other affections may be propagated by the bites of flies, and it has also been asserted that inoculation of yellow fever may be effected by the stings of mosquitoes. It is readily conceivable that flies or other insects, lighting upon pus or other material containing pathogenic micro-organisms, may soil themselves with the matter, and thus carry it to the surface of a small wound, or to food which will later be eaten. As long ago as 1883, Grassi stated that he had found the ova of certain intestinal parasites, such as tenia solium and oxyuris, unaltered, in the intestines of flies. Two years later Marpmann reported the results of certain experiments which he had made with micrococcus prodigiosus and bacillus fetidus. He fed flies with potato-cultures of these micro-organisms, and obtained the same micro-organisms in cultures made from the intestinal contents of the same flies.

Dr. Guiseppe Alessi was led, from a consideration of the importance of these results to undertake a further series of experiments with some of the known pathogenic micro-organisms (*Archivio per le Scienze Nediche*, vol. xii., No. 3, 1888). It will suffice here to relate briefly his mode of procedure and the results obtained in his experiments with the tubercle bacillus. He took some sputum from tuberculous patients, which he had found to contain the specific micro-organism, and placed it upon glass plates under a screen. He then put some flies under the screen and left them there for several days. At the end of this time he removed the intestines from the flies and made some cover-glass preparations from them, staining them by the Koch-Ehrlich-Weigert method. These preparations, examined under the microscope, showed the presence of large numbers of the bacilli. The experiments were repeated a number of times, and always with the same results.

He then examined the dejections of the flies which had been fed on phthiscal sputa. For this purpose he placed a sheet of paper on a wire framework under the fly-screen, and examined the feces there deposited by the same method of cover-glass preparations and staining. He found that these fecal matters contained the bacilli in great quantities, the organisms being here much more numerous than in either the intestinal contents or the sputa. It was thus shown that flies ingest, along with the sputum, the specific bacilli, and that the latter are found unaltered in the intestinal canal and in the feces of the insects. As a control experiment he examined the intestinal contents and the excrement of other flies caught in the laboratory, which had not been fed on the phthisical sputum, but in no case found the specific micro-organisms.

Having ascertained that the flies ingested and passed in their feces the tubercle bacilli, the next step was to learn whether the micro-organisms were destroyed in this journey, or whether they were still alive and had retained their virulence. To determine this fact he inoculated healthy rabbits with excrement of these flies, introducing it into the anterior chamber of the eye. He always used the dried feces, having previously examined it to determine the presence of the microbe. The immediate result of this inoculation was al-

ways an inflammation, more or less violent in character, but this disappeared in the course of eight or ten days, and the wound healed completely. A few days later a white point appeared in the center of the crystalline lens, and then a little nodule was seen at the border of the iris, or a white filament stretching over the pupil. In from twenty-five to thirty-five days the entire pupil was invaded with a dense white cloud, and the peripheral ring of vessels was seen to be strongly injected. The iris, seen by the oblique illumination, was of a dirty yellow color. Finally the cornea became gradually clouded so that the further intra-ocular changes could not be observed. An examination under the microscope of matter taken from the corneal ulcers showed the presence of large numbers of the tubercle bacilli, thus supplementing the clinical evidences of the virulence of the micro-organism.

Dr. Alessi made a number of additional experiments with the microbes of cholera nostras, typhoid fever, and charbon, and with staphylococcus pyogenes aureus, feeding flies with pure cultures of these micro-organisms, and in each case he obtained the same results as related above in the case of the tubercle bacilli. In every instance he showed that the micro organisms were not digested by the insects, but passed through the intestinal canal unchanged, preserving their vitality fully, and being capable of further culture after their journey.

It would be easy to draw most alarming conclusions from the results of these experiments as related by Dr. Alessi. It does not necessarily follow, of course, that, because it has been shown that a few pathogenic micro-organisms can be carried from place to place by flies, all can be so transported; but, nevertheless, it suggests a possibility of such an occurrence. If this were the case, simple isolation of a patient suffering from a contagious disease would not be sufficient to prevent the spread of the malady, for the flies might readily carry the micro-organisms from one room to another, from one floor to another, or from house to house in the same portion of the city. But practically, even admitting the author's conclusions, which must necessarily be confirmed before being generally accepted, there is little to cause alarm to the most timid. If flies were such active agents in the transmission of disease we ought to have our epidemics in summer; but, in point of fact, we find most of these diseases more prevalent in winter, at a season when the house-fly is at rest. It nevertheless furnishes one argument more pointing to the necessity of the immediate and thorough disinfection of all the excretions from the body of one suffering from contagious disease, a matter which everyone recognizes the need of, but which everyone, we fear, does not insist upon as he ought.—*Ed. Med. Rec.*

The *Med. Times* says, The sound practical common sense exhibited in Dr. Wathen's remarks on the Reaction in Gynecology, at the meeting of the Kentucky State Medical Society is much to be commended. From many other quarters the same sound doctrine is now being preached; and the ovariotomist is now, like his predecessors, to be judged by his results; not those he hopes or believes he has secured, but those which he can *prove*.

Unquestionably a reaction has thoroughly set in, and ovariotomy will ere long be confined to its legitimate sphere.

Dr. Charles P. Becker, in an article in the *N. Y. Med. Jour.*, recounts some of the therapeutic effects of sulphuric acid. He says: "In the treatment of furuncles, sulphuric acid has in my hands acted as a specific. I have not once failed to cut short a course of boils where I have administered it." Besides administering the drug internally, he applies a weak solution externally to boils and carbuncles, by means of lint saturated with it.

Magnesia Dangerous.—Stewart advises against the giving of dose upon dose of carbonate of magnesia, when it fails to purge.

It is likely to make a dangerous stone-like impaction in the intestine. He has known several cases of death from this cause.—*Can. Med. Rec.*

Dr. W. B. Lee, Adelphi, O., writes under date May 18, 1888.

While in attendance at the American Medical Association, held at Cincinnatti, I received a sample bottle of "Dioviburnia".

On my return home I was called to see a case, a young lady, 17 years of age, who had all her life suffered with disease of a spasmodic nature. All the experts in the near cities had been consulted, time after time, without any benefit. On the 15th, she was taken down worse than ever. I was sent for, and only controlled her spasms and suffering by chloroform and hypodermic injections of morphia, which only gave her temporary relief.

I happened to think of my sample of "Dioviburnia" and gave it. The effect has been wonderful.

St. Louis, June 14, 1888.

"Dioviburnia" is superior to any remedy of its class I have ever used. I prescribe it daily, and almost invariably the patients report favorably, and express a desire to continue its use, both for the especial purpose for which it is prescribed and for its general tonic effect. M. Yarnall, M.D.

Gentlemem.—The sample of "Dioviburnia" received last month, and tried in a patient, who habitually miscarried between the third and fourth months. She has used it all, at a time when threatened with abortion, and has now got to the sixth month comfortably. R. B. Elderdice, M. D.,
McKnightstown, Pa.

St. Louis, June 18, 1888.

For more than a year I have prescribed "Dioviburnia." In those cases that I have been able to follow up, I found that they derived much benefit from its use in almost every form of dysmenorrhea, especially the conjestive form. I am so pleased with this remedy that I now prescribe it almost daily.
T. L. Papin, M.D.

St. Louis, June 21, 1888.

For a long while I have been in the habit of prescribing fluid-extract of Viburnum Prunifolium in those painful, functional disorders of the uterus and appendages occurring in cases that came under my care for renal and vesical diseases. My results have been satisfactory.

Of late, I have given the remedy in the form of the "Dioviburnia" as prepared by a well-known St. Louis pharmacist, and the results were equally good, perhaps better; and the method of administration vastly superior.
John P. Bryson, M.D.

Greenfield, Ill.

The "Dioviburnia" answered a most excellent purpose; am delighted with it. Our local druggists now handle it and I am prescribing it daily.
Frank Stubblefield, M.D.

Marshall, Mo., July 24, 1888.

I desire to state that in my extensive experience with that valuable *uterine tonic* it has uniformly given good satisfaction. "Dioviburnia" is a most excellent preparation; decidedly the best uterine tonic I have any knowledge of, and I can conscientiously recomment it to my professional brethren as well worthy of a fair trial. Yours truly,
J. B. Davis, M.D.

Kearney, Mo, August 1, 1888.

I have given the "Dioviburnia" a fair trial and found it useful as an uterine tonic and antispasmodic, it is superior to any remedy of its class that I have ever used. I am so pleased with this remedy that I now prescribe it almost daily. A. C. Major, M.D.

BERND'S PHYSICIAN'S

OFFICE REGISTER.

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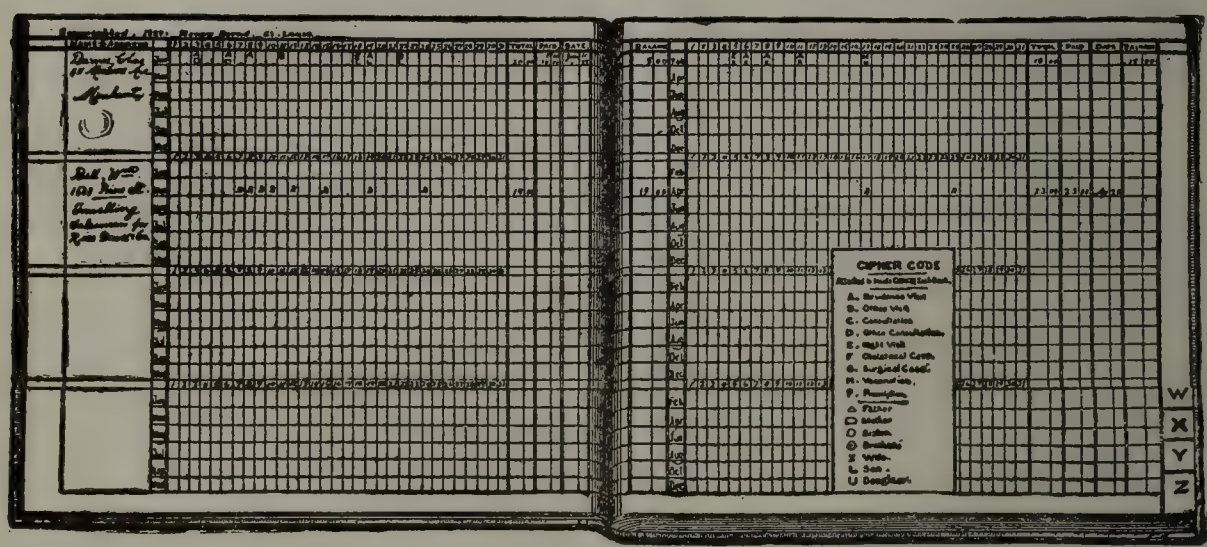

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VOL. XVIII. No. 13.
WHOLE No. 330.

ST. LOUIS, SEPTEMBER 29, 1888.

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New York Medical Journal.
March 10, 1888.

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Philadelphia Medical News.
March 3, 1888.

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REPORT ON PROGRESS.

GENERAL SURGERY.

BY A. H. MEISENBACH, M. D.

I. CAUSES OF DEATH IN GUNSHOT INJURIES.

II. EXTIRPATION OF CONSTRICTED PORTION OF THE LIVER.

III. A CASE OF INTESTINAL OBSTRUCTION WITH RUPTURE OF THE BOWEL; OPERATION; RECOVERY.

IV. INCISED WOUND OF THE HEART.

V. GALL STONES CAUSING SUPPURATION; OPERATION; RECOVERY.

VI. EXTIRPATION OF A CANCER OF THE LARGE INTESTINE.

VII. EXTIRPATION OF THE RECTUM.

VIII. EXSECTION OF THE VERMIFORM APPENDIX IN PERITYPHLITIS WITH CONSECUTIVE PERITONITIS.

CAUSES OF DEATH IN GUNSHOT INJURIES.

Von Mosetig-Moorhof places the causes of death in gunshot injuries in two groups—direct and indirect causes of death.

To the first group belong certain injuries of the brain, perforation of the heart, asphyxia due to tracheal wounds, wounds of the spinal marrow, and large arteries, and shock. The greater number of causes of death belong to the second group, or indirect causes, and of these embolism and wound infection are of the greatest interest to the surgeon. Embolism occurs in two forms, fat embolism and fibrinous embolism.

Wound infection which formerly formed the greatest contingent of the indirect causes, has, since the introduction of antisepsis, lost much of its danger, excepting in tetanus, the result of which has not been affected by antisepsis.

According to the writer the pathogenesis of tetanus has not been fully determined in all cases.

Gunshot wounds cannot, as a class, be considered as aseptic wounds, and the progress of each individual case can only determine whether it is aseptic or not. These facts have a marked significance as regards the choice of dressings in gunshot wounds. Especially should dressings be avoided which allow healing under a crust, and which may have a tendency to retard drainage and prevent evacuation of the secretions from the wound.

V. Mosetig Moorhof recommends an antiseptic gauze dressing, the wound first having been covered with antiseptic power.

Notwithstanding the fact that gunshot wounds cannot as a class be considered as aseptic, yet the writer can instance several cases of gunshot wounds of the thigh in which pieces of clothing were driven entirely through the wound and taken out at point of exit of the ball, and yet the case ran an aseptic course, and the writer believes that many cases of gunshot wounds that would run an aseptic course are rendered septic by careless and unnecessary probing on the part of the surgeon.

EXTIRPATION OF CONSTRICTED PORTION OF THE LIVER.

Dr. Langenbuch describes, in the *Berliner Klin. Wochenschrift*, No. 3, 1888, the case of a woman, aged 30, who had suffered for eight years from abdominal pain, most marked when she lay down: when lying on the back,

palpitations and a feeling of fear came on. In the upper part of the abdomen a swelling the size of a fist could be felt. It was hardly perceptible externally, and extended from the ensiform cartilage to within two and a quarter inches of the umbilical level. The swelling was smooth, tough and elastic; its inner border was thick. Percussion impaired, the dulness being continuous with that corresponding to the area of the liver. Echinococcus or, more probably, constriction of liver, caused by clothing, was diagnosed. An exploratory incision was made, and a large mass of liver-substance, cut off by a deep constriction from the left lobe of the liver, was discovered. The position of the constricted mass explained the high degree of pain and discomfort which it caused, strongly contrasting with the trifling inconvenience observed when the right lobe is similarly affected. The mass in this case pressed the pyloric portion of the stomach, the duodenum, pancreas, aorta, with several great nerves and ganglia of the sympathetic against the vertebral column. The mass of liver was amputated, several pedicles being made out of the bands of connective tissue which still united it to the main part of the liver, and carefully ligatured. Hemorrhage occurred on the evening of the operation, the abdominal cavity was opened up again, clots removed, and a vessel ligatured. The patient recovered for a time. Gradually ascites set in, with edema. Dr. Langenbuch was uncertain whether the ascites should be attributed to the high degree of hydremia present in this case, or to diminution of the area of the portal circulation. The abdomen was twice tapped, when the patient is said to have recovered completely.

A Case of Intestinal Obstruction, with Rupture of the Bowel; Operation; Recovery.

W. V., a grocer's assistant, aged about 29, sent for me early one morning in July, 1885. He stated that on the previous evening, when chopping up firewood, he felt a pain in the stomach, which had continued until morning. There had been slight sickness, but the bowels had not acted for twelve or fourteen hours. I found the patient in bed, complaining of pain in the hypogastric and right inguinal and lumbar regions. The pain was increased by pressure in the hypogastric region. There was no marked dulness or tumor. An aperient pill and dose of castor oil were given, but both were rejected with vomited food. The castor-oil was repeated, and one pill of opium (half a grain) and belladonna (quarter of a rrain) given every three hours. In the night vomiting was distinctly greenish and sour. As there was no action of the bowels, an injection of soapy warm water, castor-oil and turpentine was given. This succeeded in clearing out the colon, and it was followed in six hours by a very slight action. Vomiting continued every few hours. The abdomen was increasingly tender, and there was dulnes over an area of four or five square inches to the right of the umbilicus, and three inches below. There was slight tympanites. No improvement followed, and the patient having been removed to the hospital, it was decided at midnight (four days after first symptoms) to operate. The patient was almost moribund, the abdomen was greatly distended; temperature, 104.5°, pulse 135, and quite characteristic; respiration was short, rapid and labored. The A. C. E. mixture was administered. The usual median incision was made through the abdominal wall, and afterwards carried two inches above the umbilicus. (By the courtesy of the surgeon of the hospital, I was asked to assist in the operation.) The peritoneum was carefully divided on a grooved director. No sooner was the abdominal cavity thus laid open, than out there gushed a large volume of horrible fecal gas, followed by a copious outflow of thin y llow-greenish fluid, containing a quantity of flakes of lymph, and bits of fecal matter. The small intestines were distended with gas. The peritoneum was intensely injected. We baled out the abdominal cavity with a teacup. Then slight bilateral pressure caused a small fountain to well up from the

deep part of the abdominal cavity. Taking this fountain for my guide, I passed the index finger of my right hand through the aperture into the bowel, upward and downward. I strongly advocated resection, but was overruled and consequently sewed up the parietal wound. The man to all appearance seemed on the point of expiring. The wire sutures all in turn gave way, quantities of fecal matter and fluid continued to escape from this wound for several weeks. The ruptured bowel became disengaged, and rose to the surface of the parietal (operation) wound. The latter became agglutinated in a mass of granulations. The abdominal cavity was once more restored. Feces passed per anum, and the patient, passing through a long convalescence, escaped with a very small fistula, the size of a hempseed, and is now othwise in the enjoyment of perfect health and strength.

Incised Wound of the Heart.

In the *Centralblatt f. Chirurgie* a notice is given of the following case of incised wound of the left ventricle of the heart, where healing had taken place, reported by A. P. Kiawkoff in the *Russkaja Medizina.*

In a quarrel one Cossack stabbed another in the left side. When the surgeon arrived, the patient was found lying insensible and breathing stertorously. On inspection, a wound was found one and a half inches in length, in the fourth intercostal space, in the mammillary line, and running parallel with the borders of the ribs. The wound was washed off, a bandage applied, and restoratives given, on which the patient recovered consciousness. Next day the general condition was good. Pulse ninety and small, temperature 100° F. On percussion the upper border of the dulness was found in the fourth intercostal space; no apex beat could be made out; lower border of dulness at the upper border of the seventh rib; the right border lay to the right of the right parasternal line; the left border about one inch to the left of the left mammary line.

The day following the patient was taken to the hospital; after four weeks' sojourn there, left apparently well. Five days after leaving the hospital he fell dead while in the act of lifting a heavy weight.

The autopsy showed the wound in the skin perfectly healed. The wound in the parietal layer of the pericardium was also found healed, with adhesions to the walls of the thorax. The pericardial cavity was filled with dark blood. A gaping wound half an inch in length was found leading into the left ventricle. The edges of the wound were thickened, and the outer layers of the surrounding muscular tissue were softened, slight fatty degeneration having taken place. There was subacute endocarditis.

We have here a case of healed wound of the left ventricle of the heart, from which, however, the patient died because of overtaxing the heart at too early a period. The cicatrix was too recent and tender, and the endocarditis had not yet passed off, and because of this the effort of raising a heavy weight raised the blood pressure in the ventricle too high, and as a consequence the cicatrix gave way.

Up to the present time seven per cent of wounds of the heart have healed.

Gall Stones Causing Suppuration; Operation: Recovery.

At a meeting of the Clinical Society of London, Mr. Pearce Gould read notes of a case of Gall-stones exciting Suppuration, treated by operation, with recovery. The patient was a gentleman aged thirty-eight, who had symptoms of gall-stones two years before he consulted Mr. Gould for an abscess in the abdominal wall at the junction of the epigastrium and right hypochondrium. The abscess was opened, and 140 small biliary calculi were removed, together with pus. The sinus that was left was long in healing. No bile was discharged through it at any time. Many of the calculi showed evidence of spontaneous fracture of a larger calculus. Mr. Gould mentioned that he had found

reference to thirty-five other cases of gall-stones making their way through the abdominal wall, but this was the only one in which the diagnosis appeared to have been made prior to the abscess bursting. The abscesses have pointed at various places in the abdominal wall, most often above and to the right of the umbilicus. As a rule no bile has escaped with the stones, and these latter have generally been numerous. There appeared to be lacking any satisfactory explanation of the very different results of biliary calculi in different cases.—Dr. Ord said he had never had an opportunity of investigating the disintegration of urinary calculi. In biliary calculi the disintegration might result from two very different sets of circumstances; it might be from the difference of consistency of the layers, or by contact of large calculi with one another. Further, while biliary calculi in the first instance were formed of a mixture of cholesterine and bile pigment, these subsequently crystallised out into different layers. A change into a different medium would facilitate disintegration.—Dr. Maclagan referred to a case of his, in which post mortem they found a hundred and eighty small calculi in the peritoneum, many of which were disintegrated. He suggested that the disintegration might be due to contraction of the walls of the gall-bladder when distention began.—Mr. Gould, in reply, said it was rather remarkable that so few cases of disintegrated calculi had been recorded. All the specimens in the London museums were beautifully facetted stones, very different from the fragments handed round. He questioned the suggestion of Dr. Maclagan as to the possible cause of the disintegration, seeing that in many cases of severe renal colic, when great pressure must have been exerted during the passage of the calculi along the duct, no such disintegration occurred.

Extirpation of a Cancer of the Large Intestine.

Von Bergmann (*Deutsch. medicin. Wochenschr.*, No. 24, 1888) reports a remarkable case of intestinal cancer successfully treated by operation. The seat of disease was the descending colon at the beginning of the sigmoid flexure; the nodalated tumor was closely adherent to the coneavity of the ileum. On laparotomy and exposure of the diseased area, a second intestinal loop, supposed to be small intestine, was found so firmly matted to the mass that it could not be separated, but, with the diseased colon, was resected. This resection involved also a large piece of the mesocolon which had become involved in the primary growth or its lymphatic extension, and many ligatures were necessarily applied to check the very free bleeding. The continuity of the healthy intestine which had been resected simply on account of tight adhesions was restored by a circular intestinal suture; the two ends of the colon, however, after the cancer-bearing portion had been cut away, were stitched to the externul wound, making an artificial anus.

On the second day after the operation, tympanites, pain and vomiting pointed to the development of peritonitis. The wound was opened again and the resected ends of the intestine, which had been sutured together, were drawn ont. A portion near the line of suture was discolored and clearly gangrenous: the thread was removed and both ends secured to the external wound: the latter now contained four intestinal lumina. The general condition of the patient improved, pain and swelling disappeared, the wound suppurated. Almost four weeks later a gangrenous piece of intestine nearly a foot long was discharged. The suppuration diminished, and there remained simply an artificial anus about the size of a silver dollar, from which folds of prolapsed mucous membrane projected.

In March, when an examination of this opening was made with a view to its closure, in place of four intestinal openings but two were found separated from each other by a thick partition wall. This was explained by the fact that both loops of resected intestine were from the colon; the portion between the two resections having sloughed, probably on

account of its circulation being cut off by the many ligatures applied while removing the diseased mesocolon, was discharged *en masse* and left only the extreme upper and lower intestinal extremities adherent to the surface wound.

Extirpation of the Rectum.

Bardenheuer exhibited his method of operating to a number of the members of the Surgical Congress (*Bei age zum Centra b att f. Chirurg.*, No. 24, 1888). The patient was an old woman suffering from a cancer extending to the breadth of several fingers above the sphincter.

Operation.—Dorsal position, with elevation of the buttocks. The incision in the middle line exposed the coccyx and lower portion of the sacrum; removal of the latter by means of the bone forceps. The sphincter was not divided. The unopened rectum was freed from adhesions by means of tearing with the fingers andblunt instruments,a provisional ligature was placed in the healthy parts above and below, and the tumor was excised. After closure of a peritoneal rent made while isolating the tumor, the continuity of the bowel was again restored by suturing the upper and lower ends together. The sacral wound was left open, the cavity about the rectum being carefully tamponaded with iodoform and iodide of bismuth gauze, and a thick rubber tube was placed in the rectum.

The duration of the operation was 30 minutes. Bardenheuer has operated in this manner upon 13 cases, losing two; one from exhaustion in 24 hours, one from the rectum being constricted in a rent of Douglas' pouch and becoming gangrenous.

Koenig (*loc. sit.*) subjects his patients to a preparatory course lasting from four to five days, thoroughly emptying the bowels and withholding food which leaves much detritus. A posterior central incision is made, and the bowel torn loose with the finger, often high above the peritoneal attachment. All involved lymphatic glands are removed- The wound is thoroughly washed out with antiseptics (carbolic or salicylic solution), sprinkled with iodoform and either packed with iodoform gauze, after the insertion of a few sutures, or drained by means of numerous deep sutures passing to the rectal walls.

Of the 60 cases operated upon, 24 per cent died, 10 per cent. remained cured after three years; 18 per cent. after two years. Three patient suffered from recidivity after they had remained well for upward of three years.

In regard to the function of the new rectum, of 21 patients examined, but six were able to retain their feces; three suffered also from stenosis.

Von Bergman (*oc. cit.*) considers that the danger of rectum extirpation is very much lessened, and prefers this procedure to colotomy; he mentions Bramann's success in this operation, of 27 cases, 26 recovering.

Exsection of the Vermiform Appendix in Perityphilitis with Consecutive Suppurative Peritonitis.

The Vienna correspondent of the *Brit. Med. Jour.*, of June 9, 1888, writes that Dr. Brenner, Assistant to Prof. von Dittel, showed a patient, aged 19 years, who had been admitted into Prof. von Dittel's clinic in March last, with symptoms of severe intestinal obstruction. The history of the case and the intense pain in the cecal region led them to conclude, with a certain degree of probability that they had to deal with perityphlitis and consecutive suppurative peritonitis. Laparotomy was performed on the day of admission. After opening the abdomen, a great quantity of pus escaped; the intestines were washed with a solution of salicylic acid; and on close examination it was found that there was an abscess in the region of the cecum, around the vermiform appendix which was perforated. The vermiform appendix was ligatured and removed. The part of the cecum which had become affected by the suppurating process was drawn forward and fixed to the abdominal wound by means of sutures as resection of the intestine could not be done, owing to the collapsed

state of the patient during the operation. The abdominal wound was closed, and healing took place by first intention. Three other cases of suppurative peritonitis following perityphlitis were treated in the wards of Prof. von Dittel by laparotomy, but all ended fatally. Dr. Brenner remarked that the recent advance in the surgical treatment of these cases consisted in the fact that operation was resorted to at an early date, and that the affected part of the intestine was removed from the abdominal cavity. This was the first case of healing after exsection of the vermiform appendix when general peritonitis was already present.

CORRESPONDENCE.

ANTIFEBRIN.

CONCORDIA, KAS., Sept. 24, 1888.

Antifebrin has a constant and important place in my drug cases. I rarely go to the sick bed without this drug. I use it in many cases where I formerly used pilocarpin. I believe it to be far ahead of pilocarpin in most cases.

Dosage: I give gr. i. to an infant, one to five days old; grs. ii to iii to a child one to two years old, and grains v to xv to adults. I repeat the dose in half hour to every 2 to 4 hours till the physiological action is obtained. In some cases the first dose seems to have no effect. I use antifebrin in the above doses in all cases of fever arising from whatever cause. I find a rapid reduction of fever, and a corresponding fall in the pulse rate, abatement of pain, headache, restlessness and general malaise. It is a valuable vaso motor stimulant, tranquilizer of the cerebro spinal system and hypnotic. It often gives a good night's rest where morphine sickens and excites, and where the bromides fail. It is somewhat similar similar in its action to antipyrin, but not so valuable in headache and nervous pain. It has the advantage of being cheaper and more pleasant to the taste. An infant will take it readily. It is insoluble or feebly soluble in water, and may conveniently be given in powder. I administer it almost indiscriminately to infants, children, and adults, in cases of inflammation of every variety, as well as in the early stages of most fevers, tonsilitis, acute croupous laryngitis, pleurisy, pneumonia, scariet fever, catarrhal fever, cholera infantum, rheumatism, malarial fevers, etc. In continued fevers I use antifebrin with caution, as it weakens the heart's action, and reduces the vitality of your patient. During the course of a malarial fever I give antifebrin grs. v. to viii. to an adult about the time of the expected exacerbation, or even during high fever. I give grs. xxv. to xxx of quinine sulphate every day for two or three days, pressing the drug more during the remission. Then I discontinue the quinine for a day or so, and give antifebrin grs. v. to viii., twice or three times a day as needed, but at no time would I admister antifebrin if fever is absent. I again resume the quinine for two or three days longer. Antifebrin is not curative in malarial fevers, it only reduces the fever for the time being and affords temporary relief.

J. H. MCCASEY, M. D.

ORIGINAL ARTICLES.

DIPHTHERIA.

BY E. R. EARLEY, M. D., RIDGEWAY, PA.

Read before the Mississippi Valley Medical Association, Sept. 26, 1886.

Judging from the mass of literature extant, the subject of this paper seems to have been a very interesting one. Many books are now scattered broadcast over the world, and others, no, doubt, are in course of publication, speculating upon this much dreaded disease, and almost as many theories are advanced as there are individuals who write on this subject. Some go back to ancient

history and tell us what Hippocrates said about a disease which, from its description, is thought to be the diphtheria of to-day. They quote from Hueter, Ortel, Nassiloff, Aretæus and others; they review Virchow's ideas on the subject; in fact they cull ideas and thoughts from nearly all the ancient and modern writers. Some attempt to prove that the diseases which have been termed scarlatina, putrid sore throat, black tongue, pharyngitis, cynanche trachealis, and cynanche tonsillitis were identically the same disease now termed diphtheria. Some writers assert that it is a mere local attack upon the mucous membranes, air passages and other parts of the body where the cuticle is removed, and caused by contagion or infection. They endeavor to show that the disease is entirely caused by micrococci or bacteria, and this theory has been very popular. Others claim to be a constitutional disease, caused by inhalations of malaria or noxious gases, as well as by bad diet and water.

Now, in pursuing this subject I will not undertake to go back into ancient history, nor even into the more modern history of the disease, preferring to work on a basis of my own, and to confine myself to facts derived from personal experience and investigation.

Whether the writers referred to did actually describe, in the diseases quoted by them, diphtheria, matters little; whether they were right or wrong, whether they understood the disease or not, is of no consequence here.

One fact, however, is well known and can not be denied, and that is, that all the diseases the human family suffer from at the present time have materially changed in type from the same diseases of many years ago. Every day habits and modes of living are changing. The people's surroundings undergo constant change. Not only do habits, dress, diet and occupations change, but the improvements in the construction of dwellings and furnishings of the same, have a tendency to bring about the very results we are now contending against. The drainage of our great cities and towns is not only imperfect, but radically and even criminally wrong and insufficient. The manner in which our sewers are constructed allows the escape of gases along the streets, and under the present system of construction of our houses, with their stationary wash-stands, bath-tubs, water-closets, kitchens and sinks, their pipes having direct connection with the sewer pipes, owing to the trapping being insufficient and imperfect, there is a constant escape of gas from the sewers into the dwellings. In addition to this we have the prevailing custom of placing heavy carpets upon our floors, with paper or straw underneath, which is allowed to remain for six months at a time to collect all the mould and other impurities that will naturally form in that time. The cushioned furniture, such as chairs, lounges, sofas, etc., which are seldom renovated, are also filled with it, thus holding in reserve large supplies of poisonous material to be floated about the room every time they are disturbed; the paper on our walls collect more of less of this mould or fungi; our beds, mattresses of hair or other material, absorb the poison, it being almost impossible to prevent it, and the occupants of these rooms inhale the poison every time they turn or disturb it. The popular habit of having large closets adjoining or opening into sleeping apartments for the purpose of depositing or storing clothing, worn or to be worn, is a source of poisonous exhalations.

In the country years ago the farmers and inhabitants of the country towns were in the habit, in the fall of the year, of burying in the ground the winter's supply of vegetables, such as turnips, cabbage, beets, apples, potatoes, etc., which were only taken out as required for each day's consumption. Later, the practice of putting cellars under their houses was established. Many of the old dwellings that were constructed without cellars had cellars added by digging the ground from under them, using planks for the side walls. Many of these had no other opening except through a trap-door from the inside of the house. These cellars each fall would be filled with vegetables and other materials for the winter's supply of food, either in bins or placed

upon the ground. In the course of time fermentation would commence in these piles of vegetables, and as this proceeded, it generated the most poisonous gases, which escaped directly into the house, and which the inmates were obliged to inhale. Although the floors were made of boards ploughed and grooved, in the course of time there would be openings produced by natural shrinkage of the wood, which would permit a free escape of the gases into the rooms above. This method of storing vegetables having been established, diphtheria has become very prevalent in the country, while with the old plan of storage outside such a disease was almost unknown in the rural districts. In the old days carpets were not used. Saturday of each week was a general scrub day, and the daily mopping of floors was the practice. There was no paper on the walls to collect the poisons, a whitewash of lime on the ceilings and walls, and the methods of cleaning house kept the air clean and pure, and there was nothing to produce malarial or fungal diseases.

My own experience with diphtheria has been somewhat an extensive one, and has proved to my entire satisfaction that it is a constitutional disease, caused by blood-poisoning. No other causes than those referred to, viz., impure air, improper food and bad water, have ever been demonstrated to me.

My attention was first called to the disease in a country practice at Early, Elk Co., Pa. My knowledge of it at the time was derived only from what was published in the medical journals. On the first day of November, 1860, I was called to see my first case, a young man about 19 years of age, who, upon examination, I found had false membranes or fungal growths, quite extensive in character, in his throat. My treatment was by local applications to the membranes of a solution of nitrate of silver; also a gargle and the internal use of chlorate of potash. This in a short time completely eradicated the false membrane, and my patient, showing no further signs of the disease, was discharged on Nov. 7. Two days after I was again called, the messenger stating that the patient was not gaining strength but, on the contrary, was growing weaker. To this call I responded at once, and found the patient walking about the room. While I was warming myself at the fire, he stepped into the next room and lay down on the bed. After a little time I went into the room to see him, and was surprised to find the young man dead. This was a shock that I was little prepared for. Before I left I got permission to hold a post mortem examination the following day. The same day I was called to see another case about six miles distant. When I arrived, I found a case which they called croup with sore throat, but upon examination I found it to be a very severe case of a croupy form of diphtheria. For this case I immediately adopted a constitutional treatment, under which my patient soon recovered. The following is the treatment pursued:

Quinine in full doses every two or four hours, and a prescription as follows:

℞ Chloride of sodium.
Chlorate of potash.
Bicarb. sodæ, of each 2 dr.
Gum. acaciæ, pulvis, 1 dr.
Ipecac. pulveris, 5 gr.
Aquæ fontan., 8 oz.

F. solution et sig.

Give a teaspoonful every half hour to one hour.

As a local application to the fungi or false membrane, I used compound tincture of iodine saturated with gum camphor, applied by means of a camel's hair brush; also gargles of borate of soda, chlorate of potash and chloride of sodium.

On the following day, as appointed, the post-mortem examination was held in the case of the young man mentioned above, and found heart clot and the blood in a very bad and degenerate condition. I proceeded then to examine for a cause, and found the rooms full of noxious gas. In the room where the young man had slept the floor was not covered by carpet, and owing to shrinkage of the boards there were many openings in the floor. This room was immediately above the cellar,

which had been made under that part of the house only; and I found that the gas came from the cellar. Upon examination the cellar was found to be filled with decaying and decayed vegetables, such as potatoes, apples, cabbages, turnips, etc. I ordered this place to be cleaned at once of all decayed matter, the floor above battened, the cellar to be white-washed with lime, and quick-lime to be thrown about promiscuously therein, as well as to be placed in boxes in every part of the house and to be allowed to air-slack, and thus purify the house. As a consequence the balance of the family were exempt from the disease.

Between Nov. 1, 1860, and Feb. 15, 1861, I treated 489 cases of diphtheria, and of this number but five died. A full report of these cases with a record of treatment and results was made to the *Cin. Med. and Surg. News*, March 5, 1861, and published in Vol. II., No. 4, page 104, entitled "Diphtheria."

Most of these cases were of the most malignant type, and the treatment used in all of them except the first above mentioned was the constitutional treatment as described. In no case was mercury used in any form, neither would I allow, or use drastic cathartics. The bowels should be kept very quiet and the strength of the patient in every way protected and vitality sustained. The patient should have a nourishing diet, and in cases where there is much prostration, the entire body should be sponged with alcohol and water or bay-rum. I would say, that in every case a careful investigation was made to find the origin of the disease, and in no instance was there any doubt that it arose entirely from local causes. Nurses of the sick going from their houses, not similarly situated, whether nursing at night, or during the day, on returning to their families, did not in any single case carry the disease with them, nor were any families affected unless a local cause could be found for it. Often while nurses were making applications to the membrane in the throats of patients, the latter would choke or cough and throw the membranes and corruption into the faces of the nurses in attendance, yet in no case did it communicate the disease. From that time to the present these investigations and examinations have been carefully, thoroughly and continuously pursued.

In the winter of 1866, Dr. Hill asked me to go with him to see a case of diphtheria at the home of a farmer. The doctor stated that he was troubled to find a cause, as there was not another case of diphtheria in the county; the farmer resided about half a mile from a public road; no member of the family had been from home, and no person had visited them at their house; hence there could be no exposure contagion.

We arrived at the house about nine o'clock in the evening and found his patient, a little boy dead. As we entered the house I believed that I had discovered where the cause of the disease was located. The house was full of gas or sulphuretted hydrogen, caused by decaying vegetables. Of course I said nothing to my friend at this time, but knowing the farmer right well I opened a conversation with him by inquiring about the crops, all of which he said were extra good. I then asked him if he buried them "out of doors as usual?" when he answered that "he and his boys had dug a cellar, under the house and had planked it up and that it was very nice and warm and that all their vegetables had been put into the cellar." I then inquired how they got into this cellar when he pointed to a trap-door in the same room and said "we only have to raise that door and go down the ladder." Just at this time I heard his son cough, a lad aged about 17 years, who sat leaning on the bed in the room. I called him to me and looked at his throat and found that it was gangrene. I called the attention of the doctor to this, and at the same time gave him the signal not to say anything. The father said when I was looking at the boy's throat "There is nothing the matter of George, he has only taken a cold." The young man then returned to his position at the bedside as before, and then I asked the farmer to go with us into the cellar to see how things were fixed up and to see his crops. We found at

he foot of the ladder a barrel of garbage which he explained to us was to feed the hogs. The cellar was packed with all sorts of vegetables in all stages of fermentation and decay. We could hardly endure the smell the short time we were there. There was no other door and the only ventilation was into the room above, through the trap door, and the crevices in the floor caused by shrinkage. While there I asked the farmer, who was a German Catholic, if his son George was confirmed, he replied that he was "but why do you ask, he only has a cold." To this I replied that he must die, that he could not live longer than morning, that if he wanted a priest to send at once, also, to get immediate ly all the help he could and make a door through one side of the cellar for the escape of the poisonous gas or they would all die. I also told him to send to the lime-kiln, about two miles away, and get good quick lime, to have all rotten and decaying vegetables picked out and taken away; to white-wash the planking in the cellar; to scatter lime over the floor to air slack; to pack the trap door; batten the floor above; white-wash the ceiling of the cellar, and to take all clothing from the rooms above that was not in actual use. All these commands were obeyed and the work of renovation started. George died in a few hours. Some other members of the family had the disease in a mild form but soon re covered and no other cases occurred at this house.

This investigation satisfied my friend, the doctor, and he never again asked or was troubled to find how his patieats became exposed to the contagion of diphtheria.

I was called to Benezette by Dr. H. in May, 1876, to consult and advise him in his course and treatment of diphtheria. On my arrival I found eighteen had died, and twenty-one were then sick. The treatment in use was mercury internally, and the local use of tinct. of iron to the membrane. This treatment was at once discontinued, and the patients were at once put upon the following:

Chlorate of potassa,
Gum acacia,
Bicarb. soda, aa, 2 dr.
Sodium chloride, 1 dr.
Aq. font, 8 oz.

F. Solution, et. sig. Give from one teaspoonful to a tablespoonful every half to one hour. Quinine from 1 to 5 gr. every two hours, the age to govern the size of the dose. Keeping the mouth wet with brandy or whisky and water in cases of general prostration, one part of the stimulant to four parts of water. Free sponging with salt water if the surface is dry and hot; if not, free sponging with bay rum was ordered, locally touching the membranes with tinct. of iodine, saturated with gum camphor, and a gargle of borate of soda, chlorate of potash, and chloride of sodium, warm. The great mystery to be solved by the doctor and the citizens was, where the contagion came from, as there were no other cases of diphtheria in the surrounding country. No one had been away from the town, and no stranger had been known to visit the place during that spring. To settle all questions after a preliminary inspection of the location, I called them to a mill race leading from a dam situated above the town, to a saw and flouring mill at the river below the village. This dam was used to hold water for the mills, and logs were floated down the stream from above, and held in the dam to be passed out in the race, as required for the saw mill. The mills required repairs, and the water had been shut up and the race was now empty. The race was close to, and parallel with the entire line of Main Street, in the bed of which was found all sorts of rotten wood, dead animals—in fact, all kinds of filth and vegetable matter in an advanced stage of decomposition. The air was filled with noxious odors which were almost intolerable. On their attention being called to this condition of things, all questions as to the cause of the contagion was considered settled. This mass of filth was at once directed to be raked up and burned, the bed of the race to be strewn with lime, the fences and all outbuildings that could be, white-washed,and quick lime placed in the rooms of each house, and allowed to air-slack.

The result was one of the twenty-one patients then sick died; one other case was developed about this time, which with all the others recovered. Of a total of 41 cases, 19 died and 22 recovered.

Such illustrations might be multiplied, but I will not take time for more than two.

The village of C, about 16 miles from the town just spoken of, was found to be in a similar condition. There was but one street in the village, and open ditches, which were used as sewers, ran along each side of this street, between the road and the houses. These ditches, in addition to the water from heavy rains and sewerage which was discharged into them, were filled with an accumulation of all sorts of debris, old boots, shoes, all sorts of decaying vegetation and materials. The sidewalks were made of boards, which had been renewed from time to time by placing new boards on top of the old ones, the stringers beneath, as well as the old boards, and some of the upper ones, were a mass of rottenness, covered with mould and fungi. Upon cleaning the ditches, removing the decayed sidewalks, tearing everything up, burning all filth, and observing the directions for the scattering of lime in the ditches, on the ground and about the dwellings, in fact following the same general directions that had been given as to the town above mentioned, including the constitutional treatment, the recovery of all the patients followed.

On March 19, 1885, I was called to see a little girl between four and five years of age. On arriving at the house I found a meeting of the Ladies' Society of the Church was being held there, and some of the ladies present had their children with them. The little patient was lying on a lounge in the large sitting room, and some of the children had been trying to amuse her during the afternoon.

Upon examination I found her throat and neck much swollen, and the tonsils, soft palate, and fauces covered with fungi or membranes. To prevent a sensation, the child was removed to another room, without stating what the nature of the disease was. The membranes were then brushed over with the compound tincture of iodine, saturated with gum camphor, and the gargle of borate of soda, chlorate of potash, and chloride of sodium, before mentioned, ordered; the prescription of chlorate potash, chloride of sodium bicarbonate of soda, etc, previously given, a tablespoonful of which was given every hour, also one grain of quinine every two hours. The entire body was freely sponged with the saline solution the first day, and then changed to bay rum. Under this treatment the patient rapidly recovered. No one that had been around her in the sitting room at the time of my arrival had any symptoms of the disease, nor did any of those that nursed her. Two other children of the household, a girl of six and a boy of three, were taken with the same disease, and quite severely, showing a croupy form. Upon being removed to another part of the house, and subjected to a similar treatment, they soon recovered also. One of them had a slight eruption.

On April 7, a man who occupied a room on the opposite side of the hall from that occupied by the children, was also taken sick with diphtheria. He was removed to another part of the house, and treated as were the others, only in proportional doses, and soon recovered. About the last of April this man's wife was very severely attacked with the same disease, with the addition of an eruption from head to foot. Taking the same course of treatment as with the others, she was soon better, but was prostrated with the sequelæ of diphtheritic paralysis of the inferior extremities, but by the free use of iron, quinine and strychnine, was soon entirely well again.

The mother of the children was the last to be affected and was treated the same as the rest and with the same result. I had instituted an investigation of the rooms of these patients while the first patients were sick, their rooms, as stated, being on opposite sides of a hall which led from another large room in which a coal stove was used to warm these three rooms, the doors being left open

for that purpose between them, but nothing could be found to satisfactorily account for this terrible disease. No cases existed at that time in the town, which is well and healthily located and with plenty of pure water. The house was clean, all clothing not in use removed from the rooms, quick-lime had been placed in each room to air slack, every means was used to cleanse and purify the atmosphere, and not another case appeared in the house, except those mentioned, although six others occupied other portions of the house and nursed the sick, while daily ladies and children of other families called to see them, yet not another case was developed in the neighborhood.

When the adult members, above stated, were taken sick I resolved to make a more thorough investigation for a first cause, and with this in view I examined two stationary washstands, which I had sealed up the first day, one placed at the corner of the large room, mentioned above, the other directly opposite this on the other side of the partition within one of the sleeping rooms—the one occupied by the mother and three children.

The waste pipe from the first mentioned room seemed to be all right, but upon opening up the pipe in the sleeping room, at the top bend of the trap and in a direct line with the sewer pipe, was a small hole about three eighths of an inch in diameter, which had been made by a plumber who was at one time called in to clean the trap, and who after getting through with his work had plugged this hole with a cork, which had been blown out by the force of the pent-up gas. We again plugged this hole and ordered that a plumber be called and that arrangements be made for sanitary plumbing, ventilation, etc. These pipes led to a first class private sewer, used only for this house, and which led to a stream some distance from the premises. The sewer drained three wash basins, two water closets, a bath room, two kitchen sinks, and a cellar sink.

Everybody being well once more,and while the plumber was preparing plans for the improvement of the system of plumbing the house, two of the children that had been ill were again attacked and showed precisely the same symptoms as in the first call and very severely. On an examination of the pipes it was found that the temporary pine plug which had been placed in the pipe, as above stated, had been blown ont again and that a constant stream of gas was coming into the room poisoning the atmosphere. We had the plug replaced at once and sent for a tinsmith near at hand and had it soldered up. In a short time the children were well again, and since that time there has not been a case in this house.

The only persons that were sick were those who came in contact with the foul gas as it issued from the sewer pipe, the prime cause of these cases.

Therefore, the conclusion is, that if our authorities, our physicians, and our boards of health, would make a specialty of removing nuisances from our streets, houses and surroundings and pay less attentian to the question of contagion we will hear less of diphtheria.

Often when a case of diphtheria is found to exist in a family, that family is prohibited from going out and the entire family remains indoors deprived of fresh air and sunlight. The neighbors are prohibited from visiting them on account of this contagion scare, while if they were allowed to keep in the open air, to have better ventilation in the houses and were directed to purify their rooms and to remove the cause of disease by preventing the generation of gases in the house, we would have very little trouble from diphtheria.

Really all our cellars are damp. On visiting a case of diphtheria we should at once examine the house from garret to cellar. In most cases we find the walls, floors, above and beneath, more or less covered and spotted with a whitish mould caused by dampness. A ventilator should be placed in every house from the cellar to the top of the roof, and a ventilating pipe should extend from the traps of water closets, sinks, bath rooms and stationary washstands, above the roof of the house.

All wood and old boxes should be removed and lime freely used in all parts of the house, and all parts, where the surface will permit, whitewashed.

In the purification of houses the writer prefers to use quicklime, allowing it to air-slack. Sulphate of iron should be thrown into the sewers and waste pipes and all doors leading to closets from sleeping rooms should be closed with rubber packing to prevent the escape of gas into the rooms. Chloride of lime, which is often used, is very good but is not equal to quicklime and is objectionable on account of its offensive odor. The use of carbolic acid was not found to be of any advantage by the writer.

The proper selection of food and drink cannot be too carefully and thoroughly impressed upon every family. Much of the fruit and vegetables used is covered with fungi, and decayed places.

Nearly every day we find sensational articles in our daily papers, and I am sorry to say, in our medical journals, also. These articles are calculated to cause uneasiness and excitement, and the cry of infection, contagion, and frequently is the cause of neglect of families and patients where the disease is pronounced diphtheria. I will only refer to one article. The following was found in many of our medical journals and daily papers:

TERRIBLE VIRULENCE OF DIPHTHERIA.

"Dr. C. N. Vail, of Negley, Ohio, after a recent post-mortem on a case of diphtheria, took a portion of the diseased membrane of the throat to his home for microscopic investigation. His research was conducted with the utmost carelessness, even some of his children being allowed to view the germ through the microscope. Two died, the doctor himself succumbed to the disease, while five remaining children are at the point of death."

For the purpose of obtaining the facts and a full report of the cases, referred to in the above article, I directed a letter to a gentleman residing in Negley, and asked him for a full and careful report of facts as to these cases, and also as to the internal and external condition of the house, cellar, water supply, situation of outhouses, etc. I received the following reply:

"The house stands on high ground on posts, instead of stone wall, and the cellar is planked up and not walled in with stone and has a gravel floor. Access to the cellar is directly from the inside of the house. There are no stationary washstands, bath tubs, kitchen or other sinks. Water is obtained from a dug well situated twelve and a half feet from the kitchen door in the direction of the stable, is dug to a considerable depth and then bored for some distance below that: is walled from where they commenced to bore to within a short distance of top of the well; the curb is much lower than the surroundings. The stable is sixty feet from the kitchen door, or forty-eight feet from the well, and the privy is between the well and the stable and other outhouse in the same neighborhood. The inner surroundings have usually been clean and neat, but Mrs. Vail had not been at home for some weeks prior to the attack and the house-keeping was done by the daughters, the oldest of whom is about 15 or 16 years of age, and the probabilities are that things were not kept in their usual good order.

After the disease had well set in, the condition of the house inside was found to be very bad, and was not attended to by the neighbors, nor by any one until the whole family became afflicted, when the township trustees took them in charge, and upon the advice of the attending physician that they would all die if not removed, they were taken ta a vacant hall and what then remained of them recovered.

I have often taken the membrane to my office and house to experiment upon, and at this time have a large powder box full of membrane in my office which is examined daily by those calling for that purpose.

We cannot expect healthy blood without healthy food, pure water, and pure air.

The inhalation of sulphide of ammonia and sulphurretted hydrogen that is so freely

thrown iuto our streets and houses from decaying matter and sewers, is destroying the health of the human family and some provision must be devised to save them from it. All of which is respeotfully submitted.

CLINICAL NOTES ON RHEUMATIC NEURALGIA.

BY R. F. BROOKS, M.D., CARTHAGE, MO.

Read before the Mississippi Valley Association, Sept. 27, 1888.

Rheumatic neuralgia or muscular rheumatism is a common disease with us. The treatment is difficult and has caused me no little worry.

Anstie (Reynold's Syst. Med., Vol. 1, p. 1044), says rheumatic neuralgia is a phrase signifying a class of cases in which inflammation of circumjacent fibrous tissues seems to cause the neuralgic pain by producing mechanical damage to the nerve; while as to gouty neuralgias they are so because colchicum cures them. According to this definition I have never seen rheumatic neuralgia.

Anstie (Reynold's Syst. Med., Vol. 1, p. 1041), thinks neuralgia is an atrophy, or a tendency to it, of the posterior root of the painful nerve or of the central gray matter.

The neuralgia I speak of is perpherial, is ambulatory, does not produce palsy, and seems to be a congestion of the sensory nerves.

Flint (Clin. Med. p. 630), denies that muscular rheumatism is allied to acute rheumatism. He thinks it a neurosis. The author of myalgia in (Pepper's Syst. Med., Vol. 4, p. 536–537), is surprised that this affection is considered a rheumatic affection by the majority of doctors. He says it is a subinflammatory process within the muscle. He says it is not a disease, it is not a symptom of disease. It is an accident of many disease.s

My studies and observation lead me to think that rheumatic neuralgia or myalgia, is more or less a neuritis of rheumatic nature. There are painful spots, made more painful by pressure. A limited portion of a nerve or muscle may be involved, or the whole length of the sciatic nerve, or the great bulk of the lumbar muscles affected. I have never treated a sciatica in our section of the country that was a pure neuralgia; there was always more or less neuritis. As to its rheumatic character, the pain in the muscles is like that aching of the joints in rheumatism. It moves from place to place like rheumatism. Cold is often the exciting cause. It comes and goes as the weather changes. It occurs most often amongst those who have the rheumatic diathesis. Before the advent of storms the myalgia appears, or if present it grows worse. In half the cases there is a gouty habit of the body. As is well known, it is often difficult to distinguish gout from rheumatism. People liable to myalgias are not liable to acute rheumatism, but neither is chronic rheumatism liable to follow acute rheumatism. Chronic rheumatism sometimes follows the acute form of myalgia also sometimes follows (Pepper's Syst., Vol. 4, p. 530) acute rheumatism.

Jonathan Hutchinson (Pepper's Syst., Vol. 2, p. 25), considers simple rhenmatism, rheumatoid, gonorrheal, urethral rheumatism, etc. as catarrhal neuroses, the exposure of some tract of skin or mucous membrane to cold or irritation acting as the incident excitor influence. What is there to hinder us from calling muscular rheumatism a rheumatic neurosis, with less instead of more neuritis?

The following quoted from Valleix (Pepper's Syst. Vol. 4, p. 535), is a true description of this affection: "Muscular rheumatism and neuralgia, have in the correspondence of their symptoms, their course, their exacerbations,in the absence of appreciable anatomical lesions, the greatest resemblance to each other. The affections often pass the one into the other."

These neuralgias or myalgias are too common in our section of country,so much so that the laity remarks it and talks about it. Myalgias are incident to tropical climates. Our climate in summer is subtropical. Our days are hot, the nights cool. The body sweats much during the day, and at night is chilled.

I have noticed that this affection is least prevalent in the coldest months. In summer and fall it is worst. I have not seen it follow overwork of a muscle or group of muscles as often as claimed by some. It comes usually from cold, or suddenly appears after a strain, a jar or a twist of the muscles. It often attacks the strong and robust. Some sciaticas are produced by sudden twists or jars. Sciatica may be a pure neuralgia, a subacute or a chronic neuritis. (Pepper's Syst., Vol. 4, p. 1236). In myalgias the severe pain thus suddenly produced spreads from a given point until it involves perhaps a group of muscles; or the pain moves from a muscle in the direction of the nerve giving supply to that muscle. It is said that in myalgia lumbalis there are no local points of acute pain; But I am sure that in many cases of lumbago I have found these points of pain; while in some cases the soreness extends from the back in the direction of the ilio-hypogastric nerve lessening as it goes further from the lumbar muscles. In myalgia of the deltoid, I have noticed that the pain radiated from that muscle in the direction of the circumflex nerve. This is to me a confirmation of Valleix who says that myalgia and neuralgia pass the one into the other. A robust farmer, of middle age, at work in the field pitching hay, happened to step into a hole. The mistep caused a terrible pain in the back. He could hardly walk. Soon after he wrenched himself again so that he had to go to bed. After being in bed three days he sent for me as he thought part of his back was injured. He could hardly believe he had lumbago as he thought himself well until he wrenched himself. He had little or no fever. His tongue was thickly coated; his breath offensive and his appetite was gone.

A plasterer, of middle age, in August lifted something which strained his back. He was able to walk slowly and could slowly sit down. He was not dyspeptic. His tongue was clean. He had no fever. He had a fair appetite and his bowels were regular. He could endure the pain during the day, but at night he would awaken with a terrible cramping of the lumbar muscles which was intolerable. These are examples of fatigue and strain. But cold more often excites it. An engineman went into his boiler to clean it. He got very warm. He was chilled on coming out. There followed a severe myalgia of the back of the head and neck, which did not yield to treatment for five days.

An elderly man caught cold in May. This cold seated in his throat and neck, not only was the pharynx and larynx inflamed, but there was intense myalgia of the muscles of the front of the neck. He had an alarming dyspnea. It is said (Pepper's Sys., Vol. 4, p. 395), "these manifestations are frequently followed by the ordinary phenomena of acute articular rheumatism." Rheumatic sore throats are common with us. The myalgia is sometimes greater than the affection of the mucous surfaces.

A myalgia of the head muscles is very common with us. It is rheumatic or gouty origin. It is a complication of dyspepsia. In some cases it recurs so often that it makes life a burden.

Weakly women have chronic myalgias of the muscles of the back, neck, and shoulders. Some doctors call this spinal irritation. I have also noticed that consumptive people are very often affected with myalgias of the chest.

A woman having dyspepsia several years, became a valetudiarian, because of the incessant pains she suffered. These pains wandered. They almost obscured a view of the stomach, and digestion. Because the pain is in the back these myalgics think they have kidney disease. They take patent medicines. They bring specimens of urine for examination. One man took a great deal of Warner's safe cure. As he did not get well, the pain spreading to his chest, he requested to have his lungs examined.

A bridge carpenter was somewhat dyspeptic. He strained the muscles of the anterior chest. He was sure he had consumption, the pain was so seated. He was glad to find it only a rheumatism.

Should a man have this rheumatic neural-

gia over the chest, spreading over the region of the heart, he is sure to think he has heart disease, especially if he suffers from occasional palpitation. He goes from doctor to doctor to have his heart examined. He gets worse. He exaggerates his misery. Thus an industrious man is crippled from work. If you can convince your patient that he has a sort of neuralgia and not a deadly hidden disease, you have gained a great deal. With hope he will heed advice and will suffer considerable pain with courage.

One must not lose sight of malaria as an exciting cause of myalgia. In malarial fevers there may be a congestion of the sensory nerve centres (Pepper's Syst. vol. 5. p. 1222) which would account for the deep seated as well as wide spread myalgias present.

As is well known, quinine is one of the best remedies for rheumatism, except the alkalies and salicylates, so that it is of benefit to the myalgia of a malarial patient.

A writer in *Phil. Med. Times* Sept. 1, '88, criticizes Anstie's theory of neuralgia as a result of debility. This writer has seen another class of cases distinctly plethoric. He gave two sample doses of salicylate of sodium and removed the pain. As preventive treatment he gave occasional doses of sulphate of soda, a vegetable diet and judicious exercise. He cured cases in this way where tonics would not.

This shows that we ought to make a special study of each case as to kind of food; to try whether sugar, urine, starchy food, or meats must be avoided. See whether it is better to avoid certain articles or to eat a variety—but abstemiously; commend exercise in the open air.

Brunton (Disorders of Digestion, p. 295) tells of a bilious headache produced probably by some alkaloidal substance which has passed into the general circulation and so poisoned it temporarily. Just so rheumatic headaches and gouty headaches accompany a disordered digestion. A mercurial with abstinence from food often cures.

If fever, rest in bed and moderate doses of quinine should follow the mercurial. If pain is very great, a small hypodermic of morphine and atropine thrown deeply into the tissues alleviates the suffering. I have tried for acute cases belladonna, colchicum, and aconite, though I think potassium iodide and colchicum given in a bitter infusion most effective. Dry heat and vigorous massage with an oily liniment are good.

In chronic cases I value electricity, I have to speak of three cases. One case of limbago complicated with neuralgia testis was relieved, relapsed, went to Eureka Springs, Ark., and has been well since. One chronic myalgia of the shoulder in a middle-aged female would not yield to treatment. A man of middle age, the third case got well. An instance of the curative power of electricity I used the galvanic and faradic currents; stabile and labile; large electrodes;—of galvanism 5-7 milliamperes of the faradic current as much as the man could bear, using a helix of very large wire. The positive pole or anode was placed over back of neck.

FROM A DENTAL STANDPOINT.

BY DR. WM. N. MORRISON.

Read by title before the Mississippi Valley Medical Association. Sept. 27, 1888.

General practitioners are brought in contact with many cases where they can be of inmeasurable benefit to their patients—by knowing what the difficulty, is, and knowing just how to correct it.

The teeth are just as important as any other bones of the skeleton, and can no more be dispensed with than other organs of the economy. Artificial substitutes are a delusion and a snare.

You should not commend them to your patients as an encouragement to the loss of natural teeth. I would like to have every physician a good dentist, as well as every dentist a good physician.

As an amount of human ills are directly attributable to the teeth from infancy to old age, let us study this subject closely and with-

out prejudice, and see what can be done to arrest this terrible destruction of tooth substance, and relieve the pain which has no superior.

The good old frontier diet of mush and skimmed milk has made the best teeth and skeletons that can be produced,

Every day forcible use upon diet, requiring plenty of time in mastication and insalivation, as well as the absorption of all excess of the acids of the oral cavity, by this food sponge, has made and will best preserve the teeth.

The soft, sloppy, chemical, toothsome diet of the day—morsels that just melt in the mouth, are the things that make people toothless. As an example,look at the teeth of children raised upon condensed milk—other intensely chemical diet follows later in life.

The teeth and glands of the mouth, and muscles of the jaw are undeveloped. Too much saccharine diet is allowed, which takes away the appetite for the proper food.

Your medicinal remedies are often administered to the saturation of the secretions of the system which ultimates in the loss of the teeth, I regret exceedingly to be obliged to say thrt the ordinary physician does not recognize his most valued and trusty friends in the teeth, and too readily commits their extraction.

In a few words I hope to be able to make plain method by which the most unskilful can take out the pain and leave the tooth a useful organ for many years.

Do not use mercurial remedies in mouths that have tartar upon fheir teeth if your fear salivation (ptyalism).

Do not destroy the pulp (nerve), because it gives pain when food is forced in its carious cavity.

Do not extract any tooth that requires physical force for its removal.

Do not be frightened at the bug bear expression,ulcerated tooth,or beinfluenced to extract it—and treat it exactly as you would a boil in any other part of the anatomy—let out the pus or other poisoning gas, and the trouble is over.

Every physician remote from a good dentist should have some scalers, a few spoon shaped excavators, pliers, syringe, mouth-mirror, etc., so he could make an amalgam filling in any cavity in about the same time it would take him to extract the tooth.

When a tooth is sensitive under slight percussion, whether filled or not, if pain is great enough, open with any awl or drill directly into the pulp chamber and remove all dead nerve material and close the cavity with cotton with the smallest amount of wood creosote, until some dentist can take the case,but do not have evtracting instruments around, for you will be importuned to use them nine cases out of ten, when one case in ten would almost be too often.

Let us save the teeth, teeth save the stomach, stomach the being.

Treatment of Urticaria in Infants.—In infantile urticaria, Dr. Deligny recommends the inunction, every evening, of the following ointment; ℞. Chloral hydrat., pulv. camphor, pulv. gum. acaciæ, aa 4 parts; ung. simplex, 30 parts. Rub the first three substances together until liquefaction occurs, and then add the simple ointment. This combination calms the itching, allows the child to obtain sleep, and does away with the scratching which gives rise to such distressing effects in this disease. In the morning the skin should be anointed with a one per cent. mixture of carbolic acid in glycerine of starch.—*London Med. Rec.*

The *Brit. Med. Jour.*, says there has been a serious epidemic of pneumonia in Middlesbrough, Eng.

The theory that pneumonia is contagious is fast gaining ground.

Mr. Brundell Carter has devised a method of opening the optic nerve sheath for the relief of pressure from the accumulation of fluid in the sheath.

Mulberries, green apples, and bananas should be excluded from children's diet.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, SEPTEMBER 29, 1888.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION MEETING.

The meeting of the Mississippi Valley Medical Assocation held in our city this week was a grand success. There were twelve states represented; the papers read were of a high order, and the Committee of Arrangements were gratified at receiving from every quarter, assurances that their promise had been fulfilled—that every member present had a profitable and a pleasant visit.

The entertainment of the visiting members by our citizens and the local profession kept pace in excellence with the scientific part of the meeting. Even our Chicago friends conceded to St. Louis the palm for arrangement and completeness of social entertainments. Our city has long enjoyed an extended reputation for hospitality and the medical profession here take great pride in sustaining it.

A full report of the meeting will appear in the next number of the REVIEW.

The officers for the ensuing year are: President, Dr. G. J. Cook, of Indianapolis; Vice-presidents, Dr. J. D. Griffith, Kansas City, and Dr. J. A. Larrabee of Louisville; Chairman of Committee of Arrangements, Dr. A. M. Owen, Evansville, Ind.; Secretary, Dr. R. L. Thomson, St. Louis. The next meeting is to be held at Evansville, Ind.

THE WAY TO CURE INDIGESTION.

In an article in the *Medical Summary* Dr. M. M. Brown says that the apparently alarming sequences that follow in the wake of indigestion can be quickly relieved and even cured if the physician and patient will follow the directions which he lays down. He says: "Strike several cracking blows at the liver firstly with compound liver pills, or with powders same compound, if pills cannot be swallowed."

If skin is sallow,use the calomel compound, if bowels are fairly regular use the improved cathartic. Give a single pill at night, repeat on fourth night and so on till at least six pills are taken in twenty-four days. Give of dyspeptine a teaspoonful before each meal undiluted, or if not well borne, half an hour after eating.

Over-loading the stomach with cold drinks at meal time, or at any time must not be indulged in. Cheese, salt fish, coffee, strong tea, ham, highly seasoned food, fat pork and beans, should not be taken while under treatment. Exercise, pure air in sleeping rooms, sunlight and light bread, with fresh made butter, eggs, rice, beef steak, broiled or boiled, custard, berries, fruit, and buttermilk, will be proper to indulge in. *Use no alcoholic beverages.*

If constipation does not yield to the dyspeptine and compound cathartics, give 10 to 30 drops at bed time of cascara sagrada fluid extract in wine-glass of water. Continue this for several weeks or months, and a cure will be effected."

It is always gratifying to learn that a physician has had good results from his treatment of disease. We can only wish that all physicians might reap the success that Dr. Brown has had in treating dyspepsia. Unfortunately, however, the simple directions which he gives, have been faithfully carried out in hundreds of cases with no success. Each case of dyspepsia is like many other troubles "a law unto itself," and no specific has yet been found for it.

THE RELATION OF SOCIAL LIFE TO SURGICAL DISEASE.

Dr. D. Hayes Agnew says (*Boston Med.*

and Surg. Jour.) "There is no tyranny more exacting or despotic than that exercised by the conventionalities which govern our living. All stages of life from infancy to old age are under its dominion. It dictates the education, the manners, the walk, the dress, the forms of speech—in fine the whole being." Continuing he recounts some of the evil effects of tight lacing, wearing high-heeled shoes, lacing the feet and legs of young children which prevents the normal movements of the muscles of the leg and food and overtaxing children; training their minds to the neglect of the physical development.

These things have been said a great many times, but the cause is so powerful that simple agitation of the question is not sufficient to counteract it. The difficulty lies in the present method of educating the people in such matters. So long as the cause exists, we cannot hope to correct the evil. The educators in the matter of dress are the fashion plates and fashion magazines. The power of the daily press in political matters is not greater than these magazines in the matter of dress.

If by any means, tight lacing corsets, high-heeled shoes, and other articles of dress that tend to deform the body, could be excluded from the "fashion literature," then might we hope to free ourselves from the tyranny of which Dr. Agnew writes.

Since fashions and customs are constantly changing conventionalities are rather to be desired thnn otherwise. This would be a queer world if no individual were influenced by the manners and customs of his neighbors. By far the greater part of humanity is content to follow prominent leaders, who are thus made educators of the masses.

It cannot be denied that agitation has some effect. The "wasp-waist" is out of style, and many sensible people now wear "sensible-heel shoes."

In the article referred to Dr. Agnew said: "Is there any reasonable explanation drawn from sources of a social nature for the great frequency of those renal disorders which come more particularly under the care of the surgeon as crystalline deposits and calculi? For maintaining the general health at the highest physiological standard, a proper quality of food and the proper disposal of tissue waste are essential conditions. Along with wealth and luxury come the abuses of the table. Americans are fast becoming a nation of dyspeptics. Our country is so rich in the products of every zone that nowhere else in the world can you find such a variety of foods, animal and vegetable. These foods, manipulated in a thousand ways by the subtle art of the professional cook, almost necessarily betray one into excess, and also create the desire for wines and other alcoholic beverages to aid the stomach in disposing of its plethoric supply. In great cities, which furnish relatively the largest number of cases of renal disease, affecting pre-eminently the mercantile and sedentary classes, we find just the conditions favorable to their development. The competitions of trade keep the merchant always at white heat. Time is golden, and the street car and other means of convey ance annihilate distance, and the ride is substituted for the needful walk. A hasty lunch at the most convenient restaurant satisfies the inner man until the business of the day is closed, when, weary and worn, he is driven to his home to partake of a course dinner, the balance of the evening to be spent on the lounge with the evening paper or the latest periodical. As for the literary man, the fascinations of the study and the library charm him away with their siren voices from the fields and the highways until bodily exercise grows distasteful and repugnant. In the meantime there has been no provision made for the waste or tissue metamorphoses of the body through that great agency, exercise. These accumulate in the blood, the internal eliminating organs of which the kidneys are chief, are overtaxed; and then follow the evils of malassimilation and of excretion in the form of urates and oxalates, often resulting in the formation of calculi.

In conclusion, may we ever hope for a time when the race will realize that these bodies which we wear, which God has so highly

honored by his own incarnation, are sacred temples to be kept in harmony with recognized physical laws, and not to be made instruments of mere animal gratification."

THE EVIL EFFECTS OF "ORANGE BLOSSOM"

Many patent medicines have been brought into prominence by the efforts of the medical profession to teach the laity the folly and danger of relying upon such measures for the relief of their ailments. As a rule, unless there can be adduced some positive evidences of the baneful effects of such remedies, it is better to say as little about them as possible. But when such evidence is to be had, it is the duty of every physician to protect his patients as far as possible by presenting the facts.

In the Texas *Cour. Rec.*, Dr. J. V. Carhart states that several cases of poisoning from the use of "Orange Blossom" (a patent medicine widely advertised as a sure-cure for all uterine ailments) have came under his observation. One of these patients had been confined to her bed about a week, and he found her suffering from "all the characteristic symptoms of arsenical poisoning".

Dr. Carhart refers to a case reported by Dr. Friedrich to the Medical Society of the District of Columbia, in December, 1887.

One of our confreres, Dr. Wm. G. Moore reported a similar case published in the REVIEW, May 19, '88, in the proceedings of the St. Louis Medical Society.

In all of these cases a complete cast of the vagina was thrown off.

Unless some physician will take it upon himself to collect evidence and prosecute the parties who are advertising and selling this nostrum, the only way to put a check upon its sale, is for the medical press to call the attention of the profession to the cases reported, and to the importance of warning their patrons against its use.

IN A LETTER in this number of the REVIEW, Dr. McCasey say he administers antifebrin almost indiscriminately to infants, children and adults in cases of inflammation of every variety as well as in the early stages of most fevers. He has found that in continued fevers the effect of this drug is to weaken the heart's action and reduce the vitality of the patient. Great discrimination should be exercised in the use of any drug so powerful as antifebrin.

SELECTIONS.

WHAT IS THE CAUSE OF CANCEROUS INFECTIVITY?

BY JAMES BRAITHWAITE, M.D., LONDON.

In consequence of the editorial comments with which my previous paper, entitled "What is Cancer?" was favored, I find myself very properly challenged to answer the important question which forms the title of the present communication. I do so with the full knowledge that failure in this implies the rejection of my theory as a working hypothesis. The subject, however, is one involving a more profound knowledge of what life is than we as yet possess, and still the answer depends upon this very point. On this account especially I ask the kind indulgence of the profession.

Before considering the question "What is the cause of cancerous infectivity," it is necessary for the reader to realize that vitality is comparative. We are apt to look upon a thing which is alive as simply alive, "and there is an end of it;" whereas one thing may be more alive than another. Life is simply one of the forces of nature. It is the only which we cannot initiate or produce by conversion from another force, but we can convert it into other forces, as into mechanical force. Just as mechanical force, or light, or electricity may vary in amount, so may the vitality or intensity of life in one individual of a species be greater than that in another. In the same way the component cells of the tissues of his body may and do vary in their degree of life relatively to each other. For instance, the skin of the ankle is in a lower state of vitality than that of the thorax. The cells which are

just being produced in the lowest layer of skin are in a state of active life; those which have been produced some days are less alive; and those which are just ready to be brushed off the surface are less alive still, if alive at all. Take a nail, and the same thing is seen more plainly. No one will admit that the morsel which he removes as superfluous is alive; yet, if not, at what distance from the root did its vitality cease—at three rows of cells from its root, or at four, or at what exact distance? There is no distinct boundary line between the living nail and the dead,any more than there is under ordinary circumstances between life and death. Let this doctrine of comparative vitality be admitted, and we may then take a further step and admit as a question for consideration whether the vitality of certain cells of the body, such as epithelial cells, may be raised by an excessive amount of nourishment or by other peculiar circumstances in which they muy be placed. The arguments in favor of the probability of this were given pretty fully in my previous paper, "What is Cancer?" The hypothesis was brought forward that a malignant growth springing from epithelium may begin in several ways, but that penetration of the basement membrane and lodgement of cells beneath it, with subsequent non-encapsulation of the growth, are essential factors in all. In one set of cases the proliferation of cells upon a free surface is the first step, and the penetration is the effect of this proliferation; in the other the penetration is the first step, and the proliferation is the effect. In either case, however, the degree or intensity of life of the invading cells is increased. It is especially so when over-nourishment is the prime cause, whether from an excessive meat diet, or whether from non-use of even a proper amount of daily food, owing to an inactive life.

When, however, from what cause, as a first step, epithelial cells become lodged in the softer tissues below the basement membrane, their supply of nourishment will be considerably increased. These cells, then, naturally hardy, somewhat incompressible, growing with great rapidity, and unable to die by abrasion, as is usual with epithelium cells, have their "tension" or intensity of life increased. It is now but a step to infection of the neighboring lymphatic glands. The simple vection of the cells along the lymphatics I need not advance arguments in favor of: the possibility, nay certainty, of this will be admitted. The question is "What happens when three or four of these cells arrive in a lymphatic gland?" They then find themselves in a machine accustomed to deal with effete and barely alive matter. Could we measure the degrees of life, we might imagine that of the gland cells to be 10 and that of the effete matter or lymph 2,but of the invading epithelial cells 15. Their vitality, therefore, overpowers that of the gland cells, and, as in the original locality where the parent growth took place, the invaders win. The success, therefore, of the invading epithelium cells is simply a question of comparative vitality. In a case of vection of cancer cells such as we are considering, the odds in favor of the invaders is still further increased by the tissues in general of the patient being in a lower state of vitality than in health. He probably is in a high state of chemical nutrition, but is probably in a low state as regards the quantity or the tension of his vital fluid,from anxiety and the wear and tear and the disappointments of life. We must remember that we do not yet understand life. It has not been studied, and it cannot be, as electricity has been. When electricity was first known, no person could have guessed or supposed that there would turn out to be such a quality as tension as opposed to quantity, or what we call positive and negative states. It may yet be discovered that there are qualities of life as well as quantities. It is evident that the life in the cancer cell is superior in some way, in quality, in quantity, in tension, in intensity, or in rapidity of formation, to the life in cells of the gland to which it is carried; for it destroys them, grows faster, and crowds them out of their natural and proper place. I think, then, that a higher or more intense degree of life is the secret of what is called

the infectivity of cancer cells—a comparative intensity, assisted by a lower tension or quantity of life in the part invaded. Experiments made upon this point should consist of transplantation of the epithelium from a young and vigorous individual to the gland or tissues of an older and feebler individual of the same species. It is, I see, stated in the leading article of the *Lancet* mentioned that the transplantation of living epithelium by embolism actually has been known to result in the production of a new growth capable of indefinite increase. The writer adds that he does not as yet admit this to be a settled and ascertained fact in the case of normal epithelium. We are, however, dealing with epithelium the nutrition of which has been stimulated, and which is not consequently in precisely a normal condition.

How accurately in nature is the food adapted to the wants of the tissues of the animal or plant consuming it. How is it that the spores of a mushroom must pass through the intestines of a horse, whilst those of a cow will not do? They both feed in the same field: how small must be the difference; yet it is one vital to the spores. Consider the effect of the peculiar food given by bees to a worker grub which they wish to develop into a queen. The food is the cause; the increased life is the effect. How is it that the tortoiseshell butterfly lays her eggs on a nettle, whilst she herself has drawn her food from flowers? How is it that it is necessary for the life of a hair-worm that its larva should have lodged in the bodies of two distinct individuals, a gnat and a fish? The least divergence from the proper nourishment is fatal. Actual changes in the texture of the flesh of several fishes (salmon, trout, etc.) are occasioned by change of food. If water cultures show the lowering effect of depriving seedlings of certain constituents of their normal food, why may not an increase of these constituents cause an increase of vitality and growth? I believe no bacterium will ever be discovered as the cause of cancer. Is not an epithelium cell, from its very peculiarities, to all intents and purposes a bacterium itself when out of its proper place and lodged amongst other tissues, and this especially when the first step of all has been overnourishment by excessive and improper food? It does not happen to be long, or to be round or to resemble in appearance in any way a bacterium or a coccus, but it is under these circumstances practically one.

About a year ago, having just removed a uterus entire, for cancer of its body, and looking into the abdominal cavity from the small space where the womb had been, I could see the peritoneum of a coil of bowel freckled with minute white spots from cancer cells, which had taken root, and were growing; yet the peritoneal basement membrane had not then been penetrated. I once added a few drops of nitric acid to the urine of an elderly woman suffering from merely a feverish cold, and was startled to see the deep blue of pure iodine appear. The urine held in solution a large amount of iodide of potassium. She had repeatedly and for years taken this drug for rheumatism, but assured me she had had absolutely none for two years. This iodide must therefore have been held or stored by the cells of (probably) the liver. Why, then, had it thus suddenly been thrown off? Because the electric state of the blood and of the secretions made from it had become reversed by the febrile state. The blood and the secretions, the skin and the mucous membranes, are well known to be in opposite electric conditions. I think it not improbable that when an intensely vital cell comes into contact with one of the lower vitality, as in the case of the cells in the peritoneum which we are considering, they will be in opposite electric states and adhere. This is, however, merely a surmise, and not essential to the explanation; because it is quite reasonable to suppose that, apart from any aid to anchorage like the electric one suggested, when a cell with its life in a high state of tension rests and remains for a time upon a spot in the peritoneum, it will adhere and draw nourishment. Proliferation, which is merely another word for intense life and rapid but ill-regulated multiplication, then

takes place, and a colony is established. It has previously been shown how penetration of a basement membrane may take place by cells growing exuberantly upon a free surface. The same thing will occur when the proliferation has thus been established on the surface of the peritoneum.

If my view, therefore, is correct, the whole question of infectivity hinges upon the following points: 1. The certain fact of life being comparative in amount, a varying quantity in different tissues and cells of the same individual. 2. The probability that, just as decreased nonrishment causes decreased vitality, so increased nourishment will cause increased vitality of life fluid cells. 3. The probability that, as the cells of the various tissues require different and varying forms of nourishment, so an increase in the food of one especial ingredient may cause an increase in the life fluid of one especial set of cells. 4. The probability that, when cells of different degrees of life compete for space, those of a higher grade will displace those of a lower grade, other circumstances being equal. 5. In the case of epithelium cells thus competing, their inherent peculiarities assist this competition in a remarkable degree. The truth or not of these propositions of course, admits of argument and dispute, but they will, I think, be admitted by most men as reasonable and worthy of consideration. This question of cancer is the great question of the day in our profession; it is the dreaded disease, the very thought of which causes horror, and the actual existence of which is worse than death itself. To the elucidation of this question we are all called to devote our thoughts and energies.—*Lon. Lancet.*

NOTES ON THE GERMICIDAL ACTION OF PEROXIDE OF HYDROGEN.

BY H. GIFFORD, M. D., OMAHA, NEB.

In spite of the extensive use of peroxide of hydrogen and the commonly received opinion as to its value as a germicide, its germ-killing power has not, so far as I can learn, been investigated thoroughly. The prevalent impression of its value probably rests largely on the experiments of Kingzett, Guttman, and Miguel; but these, which were not conducted with the improved methods of bacteriology, prove nothing as to its germicidal power, but simply that in certain small proportions it prevents the development of some microbes (species not determined). Wecks, using modern methods, found, devoting a short paragraph to the subject, that the "hydrogen dioxide, formula HO_2" [*sic*] destroyed pyogenic germs in exposures of one to one and one half minute. He gives no idea, however, of the strength of the solution used, and the impression given by him of the extreme instability of the compound requires some correction. I have therefore thought it worth while to test the substance in various strengths on the bacilli and spores of anthrax, and on the white and yellow pus cocci.

The article used was Charles Marchand's fifteen-volume solution. The methods were, 1, that of Koch, in which threads, impregnated with the germs, are subjected to the influence of the germicide, and then, after washing in sterilized water, placed on the surface of the nutrient medium; 2, the following plan, which is somewhat simpler and more expeditious: A small platinum loopful of the germs is rubbed up rapidly in the germicidal liquid; from this emulsion a loopful, containing many hundred germs, is, after the desired length of exposure, transferred to a test-tube containing melted agar or gelatine, in which it is thoroughly shaken up. The tube is then placed in the incubator in a nearly horizontal position, and if any germs are left alive they develop, scattered through the mass. This method has the advantage, without the bother, of plate-cultures, or even of Esmarch's roll cultures, of giving an approximate idea of the proportion of germs that survive a given exposure. The method is often to the theoretical objection that the minute amount of the germicide introduced into the culture medium might prevent the growth of germs not really killed, but the weight of this objection is easily removed by

a few control-experiments. Since completing my work I notice that Martens has used a similar plan, and doubtless it has been used by many others, though I have not seen it mentioned.

It was found that the fresh fifteen-volume solution killed the white and yellow cocci and the anthrax bacilli in exposures of three quarters to one and one-half minute and fully developed anthrax spores in three to four minutes. When the second method was employed, with Koch's threads, the results were more inconstant, and the average time required for killing was somewhat longer, (*i. e.*, three to five minutes for anthrax spores, and one to two and one-half minutes for the cocci and bacilli.) This was probably because, in the dried clumps on the threads, some of the germs were shielded from the action of the peroxide. Also, when mixed with blood and pus (*i. e.*, under approximately natural conditions), the pus germs were killed in one to two minutes.

To eliminate the possibility that these results were due to the free acid which the stable solutions of the peroxide contain, a gravimetric analysis of a sample was kindly made for me by Mr. Bruce of the Union Pacific Laboratory, showing the presence of 0.118 per cent. of free HCl. This result differs from the statement, in the announcement of Marchand's solution, that the latter contains but "$^{1}/_{3000}$ phosphoric acid and $^{1}/_{6000}$ sulphuric acid," still the proportion is too insignificant to account for the results achieved. A full-strength neutral or alkaline solution is difficult to obtain, as the H_2O_2 decomposes very rapidly on the addition of the alkali (sodium bicarbonate) even when it is kept at a low temperature by the aid of ice, during the neutralization; but a slightly alkaline mixture formed by the addition of a drop of a saturated solution of sodium carbonate to twenty drops of the peroxide solution, is still actively germicidal.

The statement of Wecks, therefore, applies correctly to the fresh fifteen-volume solution, but his report of the instability of the solution used by him would lead one to infer that exposing it to ordinary room-temperature for a few hours, to say nothing of days, would certainly destroy all valuable germicidal power. I found, however, that a solution exposed for forty days to a temperature of 68° to 75° F., in an ordinarily corked flask, still killed the yellow pus cocci in ten to eleven minutes.

While, however, the enthusiasm with which the peroxide has generally been received as a germicide can be considered justified if the fresh fifteen-volume solution is referred to, the same cannot be said of some of the dilutions recommended. The instructions accompanying the Marchand solution advise diluting with about four times its bulk of water for use on "mucous membranes as injections, etc." A dilution of this strength was found not to have killed the pus cocci after an exposure of thirty minutes, a result which practically bars it as a germicide, though for its cleansing action it may still be valuable, especially when combined with another antiseptic, as has been recommended by Dr. Macrae, of Council Bluffs. The fresh solution, diluted with an equal volume of water, killed the pus germs after a three to four minutes' exposure; diluted with twice its bulk of water, it destroyed all but a minute fraction of the germs, after an exposure of ten minutes.

The fifteen-volume solution is sharply irritating to the conjunctiva and nasal mucous membrane, and even the weakest solution mentioned in the announcement (two to three volumes) instead of being "bland as water" causes considerable smarting of the eyes and nose for a few minutes.

Regarding the mode in which the peroxide acts, common impression, fostered by alleged observations, that the bacteria and pus globules are rent asunder, and reduced to a mass of debris by the violence of the decomposition, is erroneous. After an exposure of an hour, all active ebullition having ceased, I have failed to observe any appreciable change in the appearance of anthrax spores and bacilli, though they were killed dead as stones; and pus globules, after many hours'

exposure, though changed in appearance, still retain their contour. Neither is it, in my opinion, the nascent oxygen which kills the germs. Formerly, in common with many others, I believed that it did, and would watch with glee the mass of bubbles resulting from an instillation of the peroxide into a suppurating ear, considering each bubble the signal of the death of many micrococci. As a matter of fact, however, a partly decomposed alkaline solution, which foams much more furiously (*i. e.*, gives out nascent oxygen more rapidly) than a fresh slightly acid solution, is much less efficient than the latter. The germs, apparently, are not killed by the ozone liberated, but are simply poisoned by the undecomposed peroxide just as they are by carbolic acid and sublimate. In other words, while the ebullition, by its mechanical effects, is what makes the peroxide valuable as a cleanser, when it comes to germ-killing, with a solution of a given strength, the less bubbling the better, except in so far as it favors the access of undecomposed peroxide to germs protected by secretions.

[Since reading the above paper, I have first noticed the work of Van Hettinga Tromp (Ref. in "Centralblatt fur Bacteriologie," III., 52) who finds that H_2O_2 in the proportion of $^5/_{10000}$ kills anthrax spores for twenty-four hours, typhus bacilli in five minutes, and that cholera bacilli are killed in less than five minutes by $^1/_{10000}$. Unless typhus and cholera bacilli are especially susceptible, these results would indicate a greater germicidal power than I have found, as a fifteen-volume solution is supposed to contain something more than three per cent. of the peroxide; but without knowing just what preparation Van Tromp used, a profitable comparison of our results can hardly be made.]—*Med. Record.*

THE BREEDING OF PAUPERS AND CRIMINALS.

At a recent Prison Congress, Mr. C. H. Reeve, of Plymouth, Ind., read a suggestive paper on "Dependent Children," which went deeper than the very obvious question of their support and rearing. In regard to the existing conditions, he said that the origin of most of the undesirable of these children exists in an erroneous and perverted view, by both State and Church, of what constitutes a true marriage, producing a vicious civil and canonical legislation that encourages and sanctions their production, thereby constantly widening the planes of pauperism and crime.

"The mass of dependent children is largely made up of foundlings, illegitimates, children abandoned by worthless parents, orphans of the poor, with a few better born who become waifs from various causes. In the cases of nearly all of them except the last there is more or less mental deficiency, or deformity in the brain substance, or the conformation or arrangement of brain ganglia.

"Statute law makes marraige a civil contract —a matter of dollars and cents. No matter who comes for a marraige permit—the strong or the weak-minded, the sound and healthy or the deformed and constitutionally diseased, the millionaire or the hereditary pauper, the moral and orderly or the vicious and confirmed criminal, the progenitor of statesmen or of idiots the sane, or the hereditary insane if favored with a lucid interval, the temperate or the besotted—all are given a permit alike. The revenue is collected, the ceremony authorized, the record made, and this civil contract is fully completed by sanction of law! If a man wants to run a locomotive engine or practice medicine (elsewhere than in the United States) or plead in the courts, or stand in the sacred desk and talk theology or teach a school, or run a pilot boat, or even to secure a petty clerkship under Government, he most submit to an examination as to his fitness for the position and its duties, and be able to pass one. But one comes forward to get a permit to enter into a contract that places him under obligations and demands of him duties that are the most important, the most responsible, the most sacred that can be assumed anywhere between the cradle and the grave, that vitally affect the bodies social and politic as well as corporal.

now existing and hereafter to exist, directly and indirectly, not a word is said. All are licensed."

Not long ago the public was admonished by a consul of the United States that a lawful marriage in the United States was not necessarily binding in France as between a Frenchman and an American. It seemed shocking, but looking at our marriage system as here presented, there is certainly much to be said for the French views of the subject.

Mr. Reeve does not consider the church blameless in the matter. "It regards marriage as a holy, sacramental covenant. By permission of law its ministers ceremonially aid the parties in making this holy covenent, which, at the same time involves the statutory civil contract. It makes little or no inquiry as to the candidates.(One organization may as to belief in a creed.) It looks only for a license and the fee in prospect. Even in the shadow of the prison wall and of the gallows its ministers, in sacerdotal robes, have united criminals. Thus is it sanctioned by the church! What a shocking view is before and around us when we see the public opinion, both legal and social, upholding these conditions! Government maintains a bureau and employs scientific experts, regardless of expense to hunt out and kill diseased horses and cattle; invades anybody's premises for the purpose, and makes it a crime for the owner to resist. But when a viciously diseased man or woman applies for a legal permission to taint whole generations, it asks no questions, extends no protection for individuals or the public, but grants the permit.

"What must follow and does follow this universal misuse and abuse of knowledge and liberty? Plainly, the constant and rapid peopling of the planes of pauperism, idiocy, and crime, and the steady widening of those planes; physical and mental disease and deformity; the evolution of new forces that pervert the correct views of a true humanity, and tend to destroy moral perception."

Mr. Reeve made certain suggestions concerning the care of these little unfortunates, and then went on to say that "with the statutes providing for homes and training schools, there should be others looking to the prevention of pauperism and crime by preventing the production of paupers and criminals, and especially their production under the permission and sanction of the State laws and social usages.

"It is a greater evil to bring into life a child on the plane of hereditary pauperism, or in the line of successful criminals, than it would be to adopt the theory of Malthus, confining it to those planes. There is as much wrong in bringing into life a child with insane parentage as there would be in driving a sane child insane by cruel and brutal usage. There is more wrong in bringing into life a child without legitimate parentage than there is in child-stealing for the purpose of professional beggary.

"Let us hope that, slowly but surely, the knowledge will obtain that marriage is not a romance, but the very highest order of business, requiring more deliberation, more care and forethought, and entailing more responsibility than any other act known to humanity. That Government will recognize that it has no greater obligation resting upon it than to see that none have its license to enter into a contract of marriage who are unfit for its relations and duties, as far as human foresight and legal provisions can prevent, and proper inquiry can prevent, in most cases, if it be aided by sufficient penalties."

It is a hopeful view of the power of law to suppose it can so regulate the marriage relations as to put an end to the breeding of criminals,paupers,and insane. Careful regulation of marraige has not been so successful in countries where the regulation are most strict as to warraut any very great reliance on it; and surely it would be a curious condition of affairs to forbid the rearing of criminals at home while we import them so freely from the old world, but the conditioons we have so freely quoted is one that deserves recognition, and if laws can but imperfectly control the matter, such statements will certainly help to awaken public knowledge upon the the subject. Newspaper reports tend to show

that Dr. Richardson's chapter on the "Intermarriage of Disease" has brought him a considerable amount of correspondence from those who desire to apply to their own cases what he has to say on the subject.—*Ed. Boston Med. and Surg. Jour.*

THE MECHANICAL TREATMENT OF ERYSIPELAS.

The methods hitherto employed in the treatment of erysipelas may be divided into the medicinal and the operative. The former is, of course, the older, and it is to Kraske that the more modern method of scarification, the operative method, is attributed. He did not originally employ multiple scarifications in order to render more effectual the action of antiseptics locally applied, as was done later, but rather to relieve tension and to give exit to the septic fluids. Riedel modified Kraske's method by making incisions two or three inches in length on the borders of the erysipelatous area, instead of multiple scarifications in the diseased part itself. Both these methods have given good results, but they have some serious disadvantages. The incisions cannot be made on the face or other exposed parts, on account of the disfiguring scars which remain, and even when the disease is on the body, it is no light matter to the patient to be cut so often and in so many places.

A new method, called by the author the "mechanical" method, is proposed by Dr. Anton Woelfler, in an article published in the *Zeitsch. f. Ther.* of July 15, 1888. He was led to its adoption from a consideration of Barwell's plan of covering the erysipelatous area with white paint. He found, however, that simply painting the part was not snfficient, but that it was necessary to cover the diseased skin with some waterproof material retained by a bandage. Further experience showed him that, when the bandage became loose, the erysipelas was very apt to spread, and he then adopted the practice of sealing the covering with traumaticin, a solution of guttapercha in chloroform. This answered the purpose of keeping the disease within bounds very well, as a rule; but in certain parts, where there were many inequalities of surface and where the skin was very movable, the erysipelas would occasionally escape from under the protective, necessitating an extension of the traumaticin dressing. The author then resorted to strapping with adhesive plaster, and had no further trouble. He reports over twenty cases successfully treated with the traumaticin or adhesive plaster. The disease process was confined to the area covered by the dressing, the temperature speedily fell, and the patient made a rapid recovery.

Dr. Woelfler regards the action of the compressive dressing as a purely mechanical one in preventing the invasion of new territory by the pathogenic cocci. It is probable, he says, that the microbe soon exhausts the material for its sustenance in the skin, and, unless it can spread to the neighboring healthy parts, it quickly dies. The operative methods prevent this spread by dividing the small vessels in the skin, thereby producing extensive capillary thrombosis, and the pressure of the traumaticin or adhesive plaster exerts a similar restraining influence.—*Ed. Med. Record.*

THE EARLIEST SYMPTOMS OF HEREDITARY SYPHILIS.—(N. Th. Miller, *Jahrb. f. Kindheilk; Schmidt's Jahrb.*, No. 7, 1888.) Of 1,000 children with hereditary syphilis, only 63 were born of normal weight, that is 3,200 grams. 196 weigh 3,100 grams, whereas 740 (74 per cent) weighed less than 3,000. Of the last mentioned, 348 did not reach 2,500 grams. An extraordinary diminution of vital activity was noted. The umbilical cords were separated in many cases in the second or third week, instead of on the fourth or fifth day. Physiological desquamation began late, was protracted and feeble; icterus neonatorum was persistent. There was great tendency to umbilical sepsis and pyemia.

Syphilitic symptoms appeared in the first

month in 64 per cent of all cases; in the second month in 22 per cent. Most often in the third week, then in the second, fourth, and less often in the fifth and first. As the very first symptoms the writer noticed: Cutaneous papules, 28 per cent; fissures (mouth and anal,) 22 per cent; macules, 17.9 per cent; rhinitis, 12 per cent; pemphigus, 8 per cent; cutaneous excoriations and ulcers, 5.9 per cent; paronychiæ, 4 per cent; pseudo-paralysis of the extremities, 4 per cent.

Syphilitic pemphigus was not the most frequent symptom, but followed coryza. It was most frequent in the first week, and this, together with its location on the palms and soles, constitutes the points of differential diagnosis between it and pemphigus cachecticus, which it so closely resembles.

Miller did not regard "snuffles" as an important or certain indication of hereditary syphilis; he frequently observed it as a symptom in non-syphilitic diseases, as in gonorrheal ophthalmia after cold compresses had been applied to the eyes. The obstinacy of the coryza, together with the occurrence of fissure at the alæ nasi, makes the diagnosis of syphilis more probable.—*I. N. Bloom, in Amer. Prac. and News.*

Over-crowding of the Profession at Denver.—Says the *Den. Med. Times*: "The hotels, saloons, and even private houses of the city are littered, at the present time, with what pretends to be medical literature. The daily and weekly newspapers are filled with lengthy advertisements of quacks and charlatans. To a certain extent, these are the outgrowths of the overcrowded condition of the profession. What will the remedy be?" Higher preliminary education, higher standard of medical education, and a good medical practice act.

The London Correspondent of the *Am. Pract. and News* says the first university in Siberia has been opened at Tomsk. At present, only medicine is taught in the university, but this branch of study is sorely needed in that country where there are only 22 doctors, an average in some districts of one physician to 100,000 inhabitants. It is quite probable that doctors are not held in very high estimation by the inhabitants of Siberia, or else other parts of the civilized world would have long ago furnished a greater number than is now there.

The *Memphis Med. Monthly*, September, gives Dr. McGee's remarks on penetrating wounds of the abdomen, in which he says: "When a man is wounded in the abdomen, and there is suspicion that the gut or any important viscus is wounded, it won't do to delay for the development of positive symptoms."

An Albuminoid Principle named by Dr. H. Stillmark, "ricin" has been extracted from the seed of the ricinus communis or castor-bean from which castor oil is expressed. Twenty of the seeds administered internally are sufficient to produce death in an adult.

The *Amer. Prac. and News* says: A surgeon would be as fully excusable for tying an artery with a strip of cloth through dread of laceration as would the obstetrician for tying the umbilical cord with such material.

To say that a man is to fill the chair of "Gynecology and Diseases of Women," reminds one of the reward offered for the arrest of the man "who insulted the *female* colored *girl.*

In every freshman class there are students who compare favorably with, at least, the average of the senior class and those who base their hopes on anything less will get left.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 14. ST. LOUIS, OCTOBER 6, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

THE NERVOUS RECTUM (?) OR SOME OBSCURE RECTAL TROUBLES.

BY JOSEPH M. MATHEWS, M. D.,

Professor of Principles and Practice of Surgery and Diseases of the Rectum, Kentucky School of Medicine.

Read before the Mississippi Valley Medical Association, Sept. 26, 1888, St. Louis.

What I shall have to say in this paper is in answer to a learned dissertation by Prof. Wm. Goodell, read before the American Medical Association (obstetrical and gynecological section) at the meeting in Cincinnati, May 8, 1888. The title used by Dr. Goodell was the "Nervous Rectum;" but the term most used in the article was hysteria, or hysterical rectum. In other words, the position taken was that certain muscles became hysterical. In explanation he says "the mind is sane, the organic body is sound, the individual as a whole is above reproach, and yet these muscles will behave as if they were bereft of reason." Further on he says: "The muscles most liable to become hysterical are perhaps the circular ones, viz., the sphincters of the outlets or inlets, and while the insanity, so to speak, is more localized the sufferings are perhaps greater." The term employed here, "hysterical rectum," is in my opinion misleading, and while the importance of the affection cannot be over-estimated, I am inclined to think a caption such as heads this article, "Some Obscure Affections of the Rectum," is better for the elucidation of the subject than that employed by Prof. Goodell, for the reason that it invites investigation. I dare say there is no physician here but has had some patient complain to him of some vague symptoms of rectal disease when such diagnosis was not borne out by an examination. But you will permit me to say that it is too often the custom to dismiss these patients without an examination. Webber defines hysteria to be "a diseased state of the nervous system evidenced by an almost innumerable variety of symptoms." It is commonly classed as a functional nervous disease and has no recognized pathological anatomy.

Dr. Goodell says "in this form of hysteria there are unusually present in my experience some one of the protean symptoms of general nerve prostration, such as spine-aches and backaches, ovarian uneasiness, wakefulness and nervousness. But the chief suffering or the most exacting symptom is referred to some portion of the rectal tract, leading the physician to suppose he is dealing with some case of traumatic lesion. The act of defecation then gives great suffering, followed by painful throbbing which may last for hours. Patients thus afflicted so dread the suffering that they school themselves into habits of costiveness, and often become victims to opium eating. This is a perfect description of this class of patients. Many of them would prefer death to living such a life, and we would not be stating the case too strongly to say that this condition will often end in actual insanity. But is Dr. Goodell correct when he says that one of these may lead the physician to suppose that he is dealing with some traumatic lesion? To state it more definitely, is not the physician really dealing with a traumatic lesion, and can a cure be effected upon any other hypothesis? Certain it is that if a lesion exists, the disease will not be cured until such

lesion is eradicated, and *per contra* then the methods used for its eradication are *nil.*

Let me cite a few cases. The following was given in a paper to the Kentucky State Society, when I was discussing this subject. I have under observation a girl who has been treated for three years for chronic diarrhea. The least excitement would cause her bowels to move. She had on an average six or eight evacuations a day. If a stranger came into the room she had to go to stool. She could not go into society for this reason. For three years she had taken no nourishment save stale bread, milk and weak tea. She had the protean symptoms of general nerve prostration, viz., backache, wakefulness, nervousness, etc., together with a burning sensation at defecation and an aching for hours afterward. I gave this girl a careful examination and found a sensitive spot in her rectum. Under chloroform I divulsed the sphincter muscle and touched the spot with nitric acid; she made a rapid recovery. In a few days all looseness of the bowels had disappeared, and she ate freely three times a day.

2. Dr. J. G. Carpenter, of Standford, Ky, thus relates a case in his own person: "I was the victim once of this spasmodic contraction of the sphincter ani muscle. Often when riding horseback and feeling perfectly well, I would be seized with sudden pain in the rectum, the sensation passing all over me as if I had been struck by lightning, causing me to drop the lines in agony of seemingly impending death. A few weeks would elapse before another attack. On every sudden change of the weather I was affected. Dilatation of the sphincter cured me.

3. Wm. B., age 43, came to me with the following symptoms: At the approach of defecation he feels a severe pain up in the rectum, said by him to indicate the passage of a fecal mass over a sore place. During the act a lancinating pain is experienced, and after the evacuation a dull throbbing aching sensation which lasts for hours. A nervous exhaustion supervenes which completely unfits the patient for any mental or physical labor. This condition has lasted about two years. The symptoms seemed so clearly to call for divulsion of the sphincter that, without a minute examination, it was done under chloroform, and the promise given that he would be relieved. Several weeks after he reported to my office, saying that he experienced no relief whatever, and expressed the desire to die. I then carefully examined him and could find no lesion whatever. Recognizing the powerful effect of the reflexes in these cases, I advised that he go to a genito-urinary surgeon and be examined for stricture. This he did and was told that he had both a meatic and deep urethral stricture. These were divided by the surgeon, and the man relieved of his rectal symptoms.

4. Dr. H., of Indiana, asked me at one of the medical societies to examine him and gave me the following history: Several years ago, while prosecuting his professional duties he was attacked by a terrific pain in the rectum. It was as if a sharp knife had been thrust through him. It would come up as paroxysms with a few minutes only of intermission. He hastened to procure chloroform, and inhaled it at each approach of the paroxysm until it gradually subsided and disappeared. He now carried a bottle of chloroform and regarded it as his best friend. Indeed, he says "nothing could induce me to part with it." He would likely go for weeks without an attack. Placing him in bed, I examined his rectum with the index finger—had no instrument with me. I gave it as my opinion that a lesion existed, and that a free divulsion of the muscle would effect a cure. He afterwards consulted Dr. Cook, of Indianapolis, who gave him a careful examination with the speculum, and agreed to the diagnosis had made. An operation was not done, but we met him months afterward and he reported that he still carried his chloroform.

5. A professional gentleman, sitting in his office with his feet elevated, felt a quick, sharp pain dart through the rectum, near the verge of the anus. The pains came quick and sharp, and he jumped to his feet and cried for help. A friend, coming in, caught him as he was in the act of fainting. The

attack lasted about twenty minutes and was quieted by opium. I directed that he be taken home and suppositories of opium and belladonna be administered for their full effect. The patient had three other attacks in as many days, after which nearly all intimations of rectal disease subsided after treatment, which consisted of few washings of the rectum with hot water and the use of the suppositories.

And so I might go on to cite cases of this kind but will make these suffice to illustrate my subject. Cases 1, 2, 4 and 5, were evidently traumatic lesions causing the exposure of a nerve and case 3 was due to a traumatic stricture of the urethra and pain in the rectum was evidently reflex. Four of the cases were relieved by divulsion of the sphincter and the fifth case did not succumb to the same treatment for the reason that the disease was outside of the rectum. Hence the statement if these diseases are relieved by local measures, it proves the affection to be local; not hysterical in the sense used by Dr. Goodell; primary and not secondary in their nature. Secondly if they be hysterical or secondary, local treatment would not relieve; but a constitutional course would be necessary. Says Dr. Goodell "sometimes the site of the rectal pain lies higher up than the sphincter muscle and is irrespective of the act of defecation. It then is liable to show periodicity in its character; coming or at regular hours of the day, probably from the periodicity with which the accumulation of feces in the lower bowel takes place."

In these cases at least all idea of hysteria attacking the muscle must be dissipated for the reason that the disease is above the muscle. This brings us to consider more minutely the pathological conditions found in obscure diseases of the rectum. Believing hysteria to be a disease of the nervous system as defined by Webber having no recognized pathological condition, we have argued that it is impossible for a muscle to be attacked by such disease.

That when evidences such as have been described and manifest they are the result of disease at the seat of trouble or by reflex from continuity of structure and that such evidences are usually the result of trauma; without such recognition the plan of treatment would be misleading and no good results obtained.

Disease is often found above the sphincter muscle, which presents symptoms strongly resembling the so-called "hysterical" rectum. From what do these symptoms originate? Are they some localized disorder of hysteria? Or are they from a pathological condition? I maintain that disease exists at this local point, and as a result we have pathological changes or per consequence of disease in a contiguous part, we have disease made manifest by the reflexes. If either of these propositions be true, then the idea of such diseases being hysterical in their nature cannot be sustained. Now I do not believe that such a condition is an hysterical one, better term would be neuralgia; though this would be far from correct. There are so many pathological conditions which exist in the rectum either of which could present all of the symptoms of the so-called hysterical rectum that the necessity for an examination cannot be too strongly urged.

For instance, the rectum because of its peculiar office; of its deficiency of valves in its venous supply of blood; of its dependent position, etc., is quite liable to a congested condition and an inflammatory state. Because of these two conditions, ulceration is often found in this portion of the gut. Foreign bodies often lodge in the pouch of the rectum and by mechanical means produce trauma. The passage of hard fecal matter often results in a tear of the mucous membrane and the making of a small anal fissure, even the use of hard substances as detergent will do the same. The enema tube is known to be a cause of a wound at the verge of the anus. Small openings of internal fistulæ are a source of great irritation. As other pathological conditions which may be responsible for all the symptoms of an hysterical rectum could be cited: 1, hemorrhoids; 2, proctitis; 3, injuries to, or disease of the uterus; 4, stricture

of urethra; 5, cystitis; 6, enlarged prostate, etc, inheed any pathological state existing in or around the rectum. Until said state is restored to normal none of the so-called hysterical symptoms disappear; constitutional treatment would be of no avail. Besides the common diseases of the rectum, a few of which have been given here as causes of these vague symptoms, there are others of an obscure nature which are hard to detect. It is to these that I wish to call attention particularly. I can do no better than refer to Prof. Goodell's paper, "There is yet another form of disease which I think may be classified under the general head of nervous rectum, although its pathology is by no means fully determined. I refer to follicular colitis or pseudo-membranous enteritis as it is usually termed, in which mucous casts of the lower bowel are discharged with much tenesmus and abdominal pain; either by themselves or in the regular evacuations." Such cases as these are frequently met with in my practice, and I cannot agree that the disease is a "sheer neurosis." I have seen the disease in patients not given at all to hypochondriasis and relief has been obtained by remedies outside of those that affect the nervous symtem. I believe that in all these cases a disease exists, the result of pathological change,as the name colitis or enteritis implies of inflammatory action. I have never yet succeeded in curing a case outside of direct or local medication.

ETIOLOGY.

The rational treatment of all disease necessarily depends upon a correct diagnosis. How difficult this sometimes is, all practitioners of medicine are cognizant. Disease in the abstract implies a morbid change, a pathological as a natural condition. I have headed this article "Obscure Affections of the Rectum," a term which in itself implies a doubt.

Therefore it has been the object of the paper to demonstrate by clinical facts a basis of argument to sustain the position taken, viz., that these affections have their local origin in the rectum and that all nervous manifestations are simply secondary to the same. If this premise be admitted, then the line of treatment is plain. Relieve the cause (local) and the manifestations (general) will disappear. If the premise is wrong and these troubles are "neurotic," *i. e.*, caused by a disordered condition of the nervous system, then the term as used by Dr. Goodell, "nervous or hysterical rectum," is a correct one, and the line of treatment would be to correct the general coudition and the local symptoms would disappear.

I do admit that the effect of a "sheer nervousness" is sometimes remarkable and difficult to explain; but I am satisfied, after an observation extending over a score of years, that these particular cases are not due to such conditions. For convenience of elucidation I will give the following as the causes of these obscure affections of the rectum, which have such symptoms as have been narrated in this paper:

1. Hysteria (?) neuroses.
2. The reflexes.
3. A lesion, or pathological change at seat of trouble.

Of all vague terms used by physicians, this one, hysteria, is the vaguest. Having reference as the derivation of the word implies, to the womb, the profession has been in the habit of characterizing many affections of the female which they could not understand, as hysterical. But as many symptoms analogous to these, presented in the male, that we frequently see articles descriptive of them, and the same term used. I do not deny but that the nervons system is responsible for may strange freaks; but I do assert that much that is attributed to it, has origin in a local way where a pathological condition exists. In such a case all the treatment that could be given for the nervous systems would avail nothing until the local disorder was relieved. On the other hand it must be admitted that if the local condition was the cause it should have the first attention. Hence I am inclined to the opinion that in this condition of so-called "nervous rectum," a careful and minute examination of the parts should be given. This I am sure is very seldom done. If this be done, I assert

that it would be the rarest of happenings to find a "nervous rectum" *per se.* Therefore I will be excused from considering hysteria as a cause for rectal trouble.

2. THE REFLEXES.—No one doubts the part played by the nerves in reflex action as a cause of disease and often of a mistaken diagnosis. It has been but a few years since Dr. L. A. Sayre startled the profession by his theory of adhered prepuce causing the spasms of infancy. Vomiting as the result of a gravid uterus, epilepsy from strabismus, or a spasm from dentition, are every day examples of the force of the reflexes. At the meeting of the International Medical Congress at Washington I had the honor of reading a paper entitled "The Anatomy of the Rectum in Relation to the Reflexes." I cited cases to demonstrate that many diseases (?) of the bladder, uterus, ovaries, prostate, urethra, the cord, etc., were but manifestations of disease in the rectum, through the reflexes, and vice-versa it could be shown that many of the so-called rectal troubles could be traced to the same system of nerves. Therefore I conclude that many of the obscure affections of the rectum have their origin in contiguous parts. In many instances I have known a stricture of the urethra, an enlarged prostate, an irritable bladder, a congested ovary, an inflammation of the sigmoid flexure, to cause a most uncomfortable feeling, and sometimes intense pain in the rectum. Therefore it is absolutely necessary in all of the obscure troubles to investigate these parts. It is a well recognized fact that all such troubles give rise to great nervous disturbances, but it would be folly to treat them without first curing the pathological condition.

3. A LESION OR PATHOLOGICAL CONDITION IN THE RECTUM.—This is in my opinion by all odds the most frequent cause of these obscure rectal troubles. Indeed I am so fully persuaded of it, that I will not prescribe for any patient who presents such symptoms as have been described without first subjecting the rectum and sigmoid-flexure to a rigid examination. Since adopting this plan I can say it is the rarest exception that I fail to find the cause.

EXAMINATION.

What I mean by an examination is not a casual survey of the parts or a half way manipulation with instruments, but a careful and rigid inspection of the whole rectum. To describe, I first direct that the patient take an aperient, after which the rectum is to be thoroughly washed out with a large enema of hot water. The patient is then put upon a hard table and with proper sunlight or as some prefer, artificial light, and a careful inspection first of the anus. Sometimes a spiculum of bone or other foreign substance may be detected in the verge which if removed may stop all the trouble. An inspection is then made of the rectum proper. To do this thoroughly it is best to give an anesthetic. A set of long gutta-percha speculums should be convenient and the size necessary selected. A Wales rectal bougie should be fitted to or on the speculum, and being well anointed, it should be gradually pushed in: when the edge of the speculum has passed well through the sphincter, the bougie should be withdrawn. Then by the aid of a good light, the mucous membrane of the gut can be seen for six or seven inches. A careful search should now be begun for the trouble. Generally the eye is able to detect it, but I am in the habit of passing a long probe up the gut and by feeling around as the instrument descends, it will frequently touch the sensitive spot and the patient notifies you of the fact.

Pathological conditions such as congestions, inflammations, ulcerations, etc., can be detected by ocular inspection.

TREATMENT.

Under the head of treatment I am to take it for granted that a pathological condition is found in the rectum. I shall only refer to those that would likely cause symptoms simulating the nervous rectum (?) They are viz.:

1. Fissure.
2. Ulcers.
3. Congestions.
4. Proctitis.
5. Internal fistula.

I shall not consider the treatment of the

graver forms of rectal disease, such as result from syphilis or malignancy. Although in their incipiency they are often attended with symptoms very like the more simple affections herein named.

Fissure of the anus may escape notice even after diligent scrutiny. Therefore I have urged a very careful search for any abrasion. If any lesion or pathological change is found which is embraced by the sphincter, the remedy par excellence is divulsion of the muscle. It may be argued that this will only temporarily relieve, that the pain will reappear after the fibres of the sphincter have regained themselves. In my experience this is not true. The rest given the muscle is sufficient to allow the healing of the fissure, etc. The manner of divulsion is an item. I neither break nor tear nor use that violent force recommended by some. In lieu of all this I practice a rapid divulsion by means of Cook's speculum simply opening it to its fullest extent. In classification 2 I use the expression ulcers in preference to ulcerations: the latter indicating a more extensive condition than is found in these simple cases. I refer more especially to the small ulcers that are often found along the course of the gut and which require a very simple procedure for their cure. A probe with cotton on end, dipped in pure carbolic acid applied through speculum to the ulcer or ulcers is generally sufficient to establish healthy action and insure a cure.

3. Congestions.—The rectum is very liable to a congested state because of its portal circulation. When conjested of course many of the symptoms of reflex, etc., are present. A careful looking after the liver is essential. So it is my custom to first unload it with cholagogue carthartic, after which a few administrations of some aperient mineral water is recommended. The rectum should be washed daily by injections of very hot water. This course is generally sufficient. If any of the astringents are needed they may be added to the wash: but I much prefer the use of boracic acid a teaspoonful to pint of hot water.

4. Proctitis.—That the rectum can be inflamed seems to have escaped the minds of many. Because of the peculiar office, its abundant blood supply, its want of valves in a portion of its venous supply the erect position of the body, etc., it is very liable to become inflamed. When such conditions exist, usually the only symptoms manifest are those of reflex. It is no wonder the patient is doctored for all manner of diseases which he has not.

Pains in the back, legs, belly, ovaries, general lassitude, mania, nerve prostration, headaches, bladder involvements, loss of appetite, melancholia, etc., are prominent symptoms of this trouble. It is no wonder too, that this trouble is frequently called hysteria. When these vague symptoms exist, I beg that the rectum be inspected. I know of no class of troubles that so affect the mind even to a contemplation of suicide. If upon examination of the rectum I find it inflamed, the following course is pursued. Free aperients, hot water injections, a non-stimulating diet, perfect use of the body and the use of one of the following prescriptions as injection to be used once daily.

℞ Subnit. Bismuth - - ʒi
Iodoform, - - - grs.x
Sweet Almond oil, - ℥i,
M. S. Inject. or
℞ Fluid Hydrastis, - - ʒi
Aquæ - - - ℥i,
M. S. Inject. or
℞ Listerine,
Aquæ, - - - aa ℥i
M. S. Inject.

In obstinate cases it is best to put the patient upon a fluid diet. The best article that I have ever used is Bovinine known as Bushe's fluid food. In conclusion permit me to say that I regard these obscure troubles of the rectum as worthy of your careful consideration. Many lives have been wrecked from the fact that patients so afflicted have been neglected by the physician and they fall into the hands of charlatans and quacks. Too much stress has been given to the nervous symptoms that present and not to the local cause of the trouble. I cannot agree

with Dr. Goodell when he says "The treatment of a nervous rectum depends largely upon the general condition of the patient. If she have nerve prostration, as she usually will, failure will attend every effort to cure the rectal disorder, unless the former is successsully treated. The very best general treatment for this condition of the nervous system is that devised by Weir Mitchell, which I have described in detail in the last edition of my "Lessons in Gynecology." It consists of prolonged rest in bed, of seclusion from friends, of nutrition, of massage and of electricity." I believe such a course pursued with such cases, would be highly detrimental and I cannot be too emphatic in saying: attend to the local cause, and the nervous symptoms will take care of themselves.

THE *Med. Times* has an interesting translation on vaccination against cholera, from the *Bull. del Acad. de Med.*

Gamaleia who performed the experiments concludes thus:

So we are in possession of a method of vaccination preventive of cholera. More; this method is founded, as we have seen, upon the employment of sterile vaccine, and it possesses all the advantages of a chemical vaccination; the surety and the security, since the chemical vaccine can be measured in a manner altogether rigorous, and introduced by doses small enough to be harmless, so that the number of them can give a quantity sufficient for the desired protection. So, in our experience, the immunity is conferred without danger and without exception. We hope that this method can be applied to human vaccination to preserve populations from Asiatic cholera.

TREATMENT OF WARTS.—It not infrequently happens that children suffer from very numerous unsightly warts on the hands, which cannot be removed by caustics. Mr. G. B. Pullin, of Sidmouth, recommends in such cases the administration of two or three minims of liq. arsenicalis twice a day. In a week or ten days, he says, the warts will disappear.—*Med. Chronicle.*

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, OCTOBER 6, 1888.

SELLING THE SAME GOODS TWICE.

The Journal of the American Medical Association says: "It is, so far as we know, a maxim neither of political economy nor of commerce, that a person should sell the same goods twice to the same person, and try to make him think he is getting something new. This is what the two-course non-graded medical schools are doing."

This we believe to be an earnest effort on the part of the Journal to elevate the standard of medical education, and the REVIEW is in thorough sympathy with this effort; but we do not believe the above statement does justice to the present two-year system.

It is highly probable that no man, in whatever calling in life, would admit that he was governed by the maxim of which the journal speaks, but we need not go far to find goods sold on exactly the same principle upon which the second course of medical lectures are delivered. In the new editions of medical works that are constantly being placed before the profession, the new facts that they contain are few in number compared with the bulk of old ones, which we bought something less than two years ago. To come somewhat nearer home, our medical journals are filled each week with new material, and yet scarcely a disease is known to us now that was not written of a century ago. The journal has failed to credit the two-year-system with one of the essential features of successful medical instruction, and this is repetition. In an experience of seven years teaching in a two-course medical school, the writer has

failed to observe a single student who did not learn more the second year than he did the first.

There can be no question that a man can learn more in 3 than he can in 2 years. The REVIEW is a staunch advocate of the three-year-course, but not as a means of avoiding repetition. Thousands of practitioners would do better work in their profession if they would make it a practice to review the literature on the cases that come under their observation, instead of trusting to memory.

The journal is right in saying that graduates of two-course schools are not fully equipped to practice their profession. Hundreds of them make leading practitioers, but not till they have learned much from hard clinical experience.

The journal says: "Is it just to the student to sell him the same goods twice, and at the same time put among the 'extras' courses that he must take before he is fitted for the practice of medicine? If courses in medical and physical diagnosis, operative and minor surgery, practical chemistry, practical pathology, diseases of the eye and ear, diseases of the chest and throat, operative obstetrics, and diseases of the skin, are not important parts of medical education, why are they placed in the course at all, even as extras?"

Unquestionably these departments should be included in the regular courses, but it would be simple folly to attempt to introduce them into the two-year-course. The time will not admit of it—the student would learn something of everything and little of anything. General principles should be mastered before special investigations are undertaken.

Every student should attend three regular courses of lectures and serve as interne in an hospital before starting into the practice of medicine.

DR. EARLY W. WALTON.

When our patients recover under our treatment, our confidence in the efficacy of medicine is strengthened, when they linger and then pass away gradually, we can nearly always do something to better their condition. It is when an acute disease seizes upon a vigorous man and in a few short days removes him from our midst that we are made fully to realize how limited is our power in controlling disease.

Dr. Walton, of Austin, Texas, was enjoying good health on Sept. 22. The next day he was attacked with acute peritonitis, and on the fifth day of his illness he was dead.

He had a bright future before him. Though but little more than 30 years of age, he had been a successful, general practitioner for a number of years, and at the time of his death he was House Surgeon of the Manhatten Eye and Ear Hospital in New York City. For the past two years he had devoted his entire attention to the eye and ear preparatory to limiting his practice to diseases of these organs.

He had won the confidence and esteem of the leading men in his speciality in New York. In his death, Texas lost a valuable citizen, a man of high moral worth, and above all, a thorough christian gentleman.

YELLOW FEVER AT JACKSONVILLE.

The following is an extract a letter from Dr. Broaddus, a St. Louis physician formerly of New Orleans, who went south to help with the yellow fever work:

Jacksonville, Florida, written Sept. 20.

"The fever is terrible. Of course, there are a great many cases of intermittent and bilious fevers which diminish the mortality rate enormously; but when it is yellow fever it is as malignant as death itself, and as unmerciful.

The weather has been as hot all the time as I have ever seen in St. Louis in July and August, and the tropical sun blazes down like a furnace, with intermissions of drenching rains. The situation is indescribable.

The poor are poor indeed, and the rich are *non est*—a northern climate being decidedly preferable for the time being."

Localized Peritonitis as a Factor in Disease of the Abdominal Viscera.

In a paper on this subject, (*N. Y. Med. Jour.*) Dr. Henry C. Coe says that though an accuracy in diagnosis has been attained that a few years ago seemed almost incredible,yet it frequently happens that the best of diagnosticians fail to recognize gross lesions in patients who have been under constant observation, where the slightest symptom is noted, Only a pure pathologist who has never left the laboratory for the bedside would be so unjust as to reproach a clinical observer for the incompleteness of his disagnosis in a complicated case. Nothing is easier than the elucidation of symptoms after the autopsy.

He says there is no comparison between the importance of localized adhesions of the peritoneum and similar adhesions in the thorax.A cicatricial nodule of the peritoneum not larger than a marble, may, by exerting permanent pressure, lead directly to fatal disease in a distant organ. He enumerates the following conditions as being the most frequent that are traceable directly to mechanical pressure or traction by such inflammatory adhesions;pyelitis,pyonephrosis, intestinal obstruction and rarely ascites. The ureters are specially exposed to pressure from such adhesions. Within the past six months Dr. Coe had performed autopsies in three cases of pyonephrosis, and in each case the calibre of the ureters had been occluded by pressure from such an induration. The condition of the bladder clearly indicated that the trouble did not originate in it. The change in the ureter in these cases is essentially a chronic one. Instead of being extremely dilated and thin-walled as in cases of acute obstruction, the enlargement is mostly due to hypertrophy of the muscular coat.

Dr. Coe thinks these nodules of cicatrization produce pyonephrosis much oftener than hydronephrosis, he having seen but one case of the latter.

He says there can be but little doubt that the colicky pains and constipations that so frequently follow laparotomies are due to slight intestinal adhesions. It is a curious fact that intestinal obstruction is due far more frequently to localized than to general peritonitis. Constriction is less liable to occur at points where the inflammatory deposit is sufficient to restrict the movements of the gut, than at points where it is more movable.

Dr. Coe thinks that if the presence of peritoneal adhesions has been shown, or even strongly suspected to be the cause of a visceral affection, it is possible in some cases to remove the obstruction and to prevent its injurious effects.

When obstruction of the intestine is due to a firm cicatricial band, the only hope for the patient's recovery is performing laparotomy and breaking up the adhesion. Many cases recorded attest the efficacy of this method and procedure.

Death from Chloroform.—A death has occurred during the inhalation of chloroform in the Northern Hospital. A man, æt. 42, a turner, injured his hand with a circular saw, and was admitted into the hospital, where it was found that two of his fingers required amputation, which was done under chloroform. Subsequently the hand was attacked with cellulitis, and on Sept. 4, it was proposed to remove another finger. The patient, a fairly robust man, was apparently in average health; his heart was auscultated, and no murmur was heard. Dr. Permewan, the senior house surgeon, was going to operate, and one of the assistant house-surgeons administered chloroform. During the inhalation, and before any incision had been attempted, the patient began to struggle violently, and at the same time the pulse was observed to become feeble. The administration of the anesthetic was accordingly suspended at once, but the pulse became imperceptible. Artificial respiration was immediately resorted to; ether was injected under the skin, amyl nitrite was exhibited by inhalation, and warm counter-irritants were applied to the precordia. There was, however, no sign of a restoration of the pulse, although some attempts at automatic breathing were

apparent for about three minutes after the former had ceased. At the necropsy the heart was found to be in a state of extreme fatty degeneration, it weighed 13½ ounces and was much dilated, though the walls were not above the average thickness; the valves were healthy, the kidneys were cirrhotic and cystic. The case is important as showing that the pulse may give the first indication of impending danger.—*Liverpool cor. Brit. Med. Jour.*

A German Apologist for Sir Morell Mackenzie.—We have received a copy of a pamphlet from the pen of Dr. J. L. Kleist, which has recently been published at Charlottenburg. The author discusses various matters connected with the illness of the late Emperor Frederick, and protests strongly against the attacks which some of his countrymen have made on Sir Morell Mackenzie for his management of the case. The highly polemical report, "drawn from official sources," which was issued not long ago from the Imperial Press at Berlin, is criticised with considerable severity, and the personal animus which detracts from the scientific value of that document is freely exposed. There is no particular novelty in Dr. Kleist's line of argument, which is based on the uncertainty of the diagnosis, and the inexpediency, under the circumstances, of attempting an operation dangerous in itself and only too likely to prove ultimately useless. Dr. Kleist is to be congratulated on his course in giving such frank expression to views which must be extremely distasteful to some of the most powerful among the leaders of the profession in Berlin.—*Brit. Med. Jour.*

Dr. R. J. Levis, in writing in the *Med. and Surg. Reporter*, says the best way to arrest hemorrhages from the wound of the palmar arch of the hand is by maintaining extreme elevation of the hand. This he effects by placing the patient in bed, and applying adhesive strips to the front and back of the forearm and to these a cord which is tied to the bedstead above. In extreme cases, besides suspending the limb he bandages a rubber ball firmly in the palm of the hand. By using these measures he has avoided the necessity for ligating arteries to stop hemorrhage from the hand.

There is nothing new in this way of treating such cases, but we give it because even such rational procedures as this may be overlooked by the surgeon in treating such cases.

Damages for Syphilitic Infection.—By a recent decision of a Paris court the parents of a child suffering from hereditary syphilis, which communicated the disease to its nurse, were compelled to pay $400 damages to the woman. Each of them had also to pay a fine of $20. The decision was grounded on the clauses of the Code providing for the punishment for wounds or other injuries inflicted through carelessness. The parents were aware of their child's condition.—*Med. Record.*

This is certainly very poor compensation for being inoculated with syphilitic poison. Many a poor mortal has paid more to be rid of it, and still not be relieved. The only injustice in the decision is that the sum is too small.

The Jewish authorities of Berlin have decided that in future none but duly qualified medical men shall be allowed to perform the rite of circumcision.

This means that the barbaric practice of placing the incised penis in the mouth of the operator to check hemorrhage is at last to give way to the march of civilization. Our readers will recall the notable cases in which syphilis, tuberculosis and other diseases have been transmitted from the operators to the children by this practice.

Dr. Julia W. Carpenter reports a case (*Lancet-Clinic*) of pruritus senilis which was completely relieved by the Faradic current. There was an intolerable itching of the skin of the ankles, extending upward about three-fourths of the distance to the knee and chiefly on the posterior surface.

CORRESPONDENCE.

NARCOTICS—THEIR ABUSE.

QUINCY, ILL., Sept. 22, 1888.

EDITOR REVIEW.—In a recent number of the REVIEW, Sept. 1, 1888 there appeared an article upon the "Careless Use of Narcotics" written by Dr. I. N. Love, and while I disagree with the doctor upon one point I think the article is timely and well written; too much cannot be said and written upon this subject, and this I offer as an apology for adding a little from my own experience. Contrary to the opinion of Dr. Love, I believe that most people in this country who indulge in the habitual use of one or more of the various narcotics can attribute the contracting of the habit to the careless administration of the same by some physician, and as an illustration I will relate a case from my own practice that occurred when I was young in the profession.

A number of years ago when the use of chloral hydrate was in its infancy, I read an article in a journal extolling it as a remedy to relieve the distressing attacks of asthmatic dyspnea. The writer stated it to be a harmless remedy, and that there was no danger of patients contracting a habit from its use.

I was young, ambitious, and anxious to make a reputation, and so when a patient came to me suffering with asthma in all its horrors I was ready with my remedy and ready to promise much. The patient was a man about 45 years of age, married and in comfortable circumstances. I told him I thought there was no doubt but what I could help him, and I began by giving for the asthmatic dyspnea chloral hydrate whenever the attacks were severe. At first he would send for me and I would administer the medicine in person, but as I gained confidence in the drug and saw what marked relief my patient obtained, I gave him a 4 oz. mixture of the same, and told him to take it whenever he felt the need of it. For a while all went well, but the drug was gradually getting the mastery of my patient until one day his wife came to my office and informed me that her husband was drunk with my medicine. I then undertook to wean him from it, but the habit was well fixed, the harm was done, he knew what I had been giving him and how much, and when he could not obtain the drug at home he would send away to other towns for it, until finally he spent all his money, ruined his home, went to jail, and the last I heard of him he was in an insane asylum. The above was a sad and severe lesson to me, but it is only one of a number of similar cases I have seen.

Two years ago I had a very intelligent lady brought to me from a distance who had the morphia habit brought about by a physician having given it to her for some uterine trouble. Only recently have I had a gentleman who also contracted the habit through a physician.

Now this can all be prevented if the physician will use care. Dr. Love thinks the profession is often unjustly blamed. I am not disposed to shirk the responsibility.

When the physician finds it necessary to administer a narcotic or a drug of that character let him compound it himself and keep his patient in profound ignorance as to what he is giving him.

In compounding the medicine he must so disguise it that the patient or even a druggist could not tell of what it is composed without a great deal of trouble, and when necessary to continue it any great length of time, let him change its color, taste, etc., frequently and I will assure you the physician will never have a morphine, chloral or any other patient of this kind to answer for.

H. HATCH, M. D.

IN a case of senile gangrene, Dr. Wm. F. Waugh, of the *Med. Times*, applied the fluid extract of thuja occidentalis upon cotton wool, as soon as the skin of the affected part showed signs of breaking. This was the only dressing used throughout the case, and not a particle of offensive odor was noticed in the sick room at any time.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

ANNUAL MEETING AT ST. LOUIS, SEPTEMBER 25, 26, 27, 1888.

The first session of the annual convention of the Mississippi Valley Medical Association was held Sept. 25, 26, 27, 1888, at the Pickwick Theatre, there being in attendance fully 300 physicians from all parts of the country, many of them having with them their wives and daughters. Intelligence was received early in the day that many of those expected to be present had met with the common luck of doctors and were detained at the last moment by some serious case. They will arrive later.

DR. DUDLEY S. REYNOLDS.

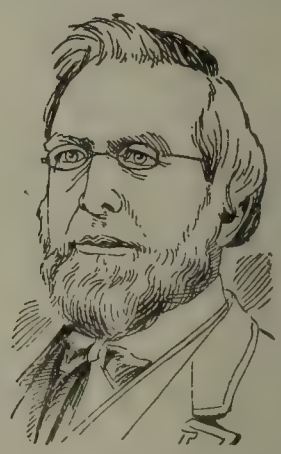
There was some delay in calling the meeting to order in the morning, owing to the tardiness in the registration, but once organized, the session assumed business proportions at once, and a most interesting and profitable day was spent.

After prayer by the Rev. Dr. J. G. Merrell, in which he invoked the Divine aid for the assembled "Good Samaritans" in their search after the means by which to heal the ills to which humanity is heir, tne chairman of the arrangement committee, Dr. I. N. Love, introduced Mayor David R. Francis, who welcomed the visitors on behalf of the city.

Mayor Francis was quite eulogistic of the medical profession, committing it to a place second in importance to no other class in its influence for the good of mankind in all the walks of life. From the standpoint of morality, society and religion, the doctors of the country went far toward moulding the public mind; in the last of these three they were perhaps not always sound, and were sometimes too materialistic and unorthodox, but were always sincere.

The Mayor hoped and believed that the visitors would be so well entertained while in the city that they would not only prolong their stay, but would return again, and often. The conclusion of his remarks was a reiteration of his more than hearty welcome to the city on the part of her people.

Dr. Louis Ch. Boisliniere, introduced by Dr. Love as a man beloved by all members of the profession in the Mississippi Valley,



DR. BOISLINIERE.

spoke a most earnest welcome on behalf of the medical profession. His remarks were as follows:

ADDRESS OF WELCOME.

GENTLEMEN.—On behalf of the medical profession of St. Louis, I tender you a most hearty welcome. It is great honor for our city to witness here assembled the representative medical men of this great valley, men of thought, of energy, of work profitable to mankind. You bring here the fruit of years spent in arduous struggles, knowledge and the experience which can but benefit suffering humanity. This reunion, by bringing us together, will enable us to exchange views, will make us better acquainted with one another, will smooth asperities and foster that spirit

of charity profitable to all, and especially to physicians who should always in word and deed aspire to the name of brethren. This is a great country which you represent—the Mississippi Valley, bounded by the Alleghany and Rocky Mountains, a territory as large as Europe, inexhaustible in the products of what is above the earth and what is under the earth, fertile in cereals, fruits, lumber and minerals, already teeming with a population greater than one-half of that of the whole country, a valley whose towns and cities spring up like magic, where once roamed, untamed, the wild Indian and the buffalo. What are the future possibilities of this vast territory? No one can tell. In its youth, it has already become the controlling social, commercial and political power of this continent, and, if I may be permitted to venture upon a prediction, it is that the time will soon come when no candidate will be awarded the highest honor of the country, who does not reside west of the Alleghany Mountains. Even in our days, the two most prominent aspirants to the presidential chair cannot be considered as Eastern men properly. "Young man, go West," said Horace Greeley, and the young men have come West, active, ambitious and progressive.

To the young men of the future belongs this great Western domain. The young men of the West are the rising power. On them are conferred the highest honors, gubernatorial, senatorial, and in the future the presidential. In the near future, our glorious Western States will cease to be tributary to the East. In the Mississippi Valley intellectual centres are even now beginning to assert themselves. St. Louis, Chicago, Louisville, Cincinnati are the rising stars in the firmanent of the future, and already form a brilliant constellation. They are justly proud of their medical colleges, universities, hospital and clinical facilities, so great, that no student needs go East for instruction. We are also having our great men, and mean to keep them. The great West has heretofore been the nursery of men of the highest eminence, and has given to the East, Gross, Marion Sims, Flint, Sayre, Parvin, Bartholow, Meigs, Emmet, Thomas and other brilliant luminaries. Our great men of the future will no longer leave us in search of higher honors. The growing West will be a field vast enough for their noblest ambition. My medical brethren! the future is therefore bright for us, and by combining our strength by often meeting for consultation and mutual improvement we shall hasten the coming of that future. Again I most heartily and sincerely bid you welcome.

The President, Dr. Dudley S. Reynolds.—I thank the gentlemen who have spoken for their kindly and hospitable welcome to your lovely city. We have assembled for work, my worthy confreres.

Had we that power which would enable the medical science to go hand in hand with that of the civil engineer and ramify every part of the country, then would I be enabled to rejoice and say that that pestilence which is laying waste over the South must wing its way and not leave its stain against us. It must be discussed; unfortunately, it cannot be settled by us. We have a great variety of duties to perform.

You have called one to fill the chair of the Presidency who is almost wholly without experience in parliamentary practice, but who has been an humble worker in the ranks of professional practice; but if anything of desire and energy will answer, I shall be devoted to your services. It shall be my intention to facilitate and expedite your business, and I shall endeavor to carry out to the letter the programme. No variation, unless decided by the Committee of Arrangements, shall be accepted.

Speech-making and addresses from the standpoint of medical assemblies is not especially desirable at this day; it is worn out, and the patience of the medical profession is worn out. These questions which are set down in your programme are important—very important. In the discussion of these questions, then, the chief interest of the meeting shall lie. Permit me to say that I feel keenly the sense of my own inability to proceed with that degree of dignity and dis-

patch which one in my position should have. We owe to His Honor, the Mayor, many thanks for his cordial welcome, and to Dr. Boisliniere, who has welcomed us so heartily.

Dr. Joseph M. Mathews, of Louisville, responded in behalf of the visiting members.

Mr. President and Gentlemen: — Although I was not aware that I was to be called upon to say anything in this meeting save that which pertained to the regular programme, I cannot, in justice to the delegates and members around me, refuse to say something in acknowledgement of the gratitude for the reception which has been accorded us. It does my heart good to say that when the call was issued that a meeting was to be held in St. Louis all business was forgotten. Perhaps those nearest us would command our attention at home, but we have left them and travelled many hundreds of miles to be with you. We are under deep obligations to His Honor, the Mayor, for his kindly interest in our meeting, and we may expect from him when he is called to that higher position, such treatment as we have not received in the past. In response to the other distinguished gentleman, I feel that I could sit for hours at his feet and listen to his kindly words. I can only say that my heart is in this matter, and I trust that good work will be done in the Mississippi Valley Medical Association.

The first paper upon the programme was that of Dr. C. G. Comegys, of Cincinnati, in which "Yellow Fever" was discussed from a clinical standpoint. He introduced his subject with the proposition that the scourge raging in the South was purely a fight between the disease and the doctors.

He pictured a typical case of the disease in its initiatory stage—high fever, slow pulse, pain in and over the eyes, photophobia, pain in the lumbar region and in the head, scanty urine, dark in color, shading later along to yellow. On the third or fourth day the second stage begins; it may be the stage of beginning convalesence, but on the other hand it often assumes a serious aspect, and proves to be a step further toward dissolution. In the former event the fever lowers, the pains cease, the kidneys act freely, and the patient expresses himself as being able to be out of bed. Should this stage assume the opposite character, the pulse slows, but becomes threateningly erratic, about 40 beats to the minute, often less; cold, clammy sweat stands on the skin, black or very dark and thickly-loaded urine is voided, and collapse may be looked for speedily.

The post-mortem investigation shows severe lesions connected with the blood, liver and kidneys; the appearances indicate how serious must have been the disturbances in these organs. The blood, heavily loaded with bile, is black and turbid; the liver is congested and the tissue itself is broken down and fatty degeneration is apparent; this same fatty degeneration is to be seen in the kidney.

The disease, the reader pointed out, was known to spring from a specific source; the myriads of spores feed upon nitrogenous substances, and this fact is of importance in attempting to master the malady. It should be remembered that at the beginning of the attack warning is given that the kidneys and liver are involved, proofs of this being the marked icterus and the albuminiuria, present in every case.

Complications of the disease, he said, must be met by the practitioner in the same manner as those supervening upon any other affection, only it must be borne in mind that time is a most important aid to the deadly and hourly increasing army of destroyers.

In the treatment of simple cases, the albuminuria should be looked after at once, as well as the fever and the icterus. An attempt should not be made to wholly subdue the fever, since the high temperature was in a measure a necessity in the re-establishment of the functions of the organs, and in the effort on the part of these to get rid of the great waste due to the specific poison penetrating the tissues. It should be controlled only within the bounds of safety to the patient. The best method of controlling it is by the use of sweat baths. Dr. Comegys believed that diaphoresis was the proper means of lowering the temperature without hazard-

ing too much in the direction of lowering the vitality of the patient. Mention was made of a method of procuring this diaphoresis—boil common corn (about a bushel), and while steaming place it about the patient under a heavy blanket. Diaphoresis was also an excellent means of overcoming the suspension of the function of the kidney. Purgative doses of mercury and antifebrile doses of antipyrin, antifebrine and digitalis were to be resorted to in their proper places.

One of the best aids in the re establishment of diuresis is a one per cent. solution of nitroglycerine (four or five drops in an ounce of water). Alcohol in all its forms and under all conditions, the doctor considered baneful, and should be absolutely excluded.

In regard to the prevention of the disease by vaccination, the doctor was not satisfied that anything tangible had been accomplished, but looked for an isolation of the spores and the discovery of a germicide within a short time.

Dr. Wm. Bailey.—I have no criticisms to make on the excellent paper read by the doctor, giving us very clearly and succinctly the history of yellow fever, giving us much of the pathology, symptomatology, and quite a rational method of treatment. If I shall take exception at all, it will be in expressing the sentiment that in accomplishing the very desirable purpose of elimination at certain times we have no more powerful agent than alcohol; consequently I believe that alcohol and possibly other forms of its preparation, properly aided, assist in elimination both through the kidney and skin. He admits that it is desirable in recuperation, but I would also give it at the time when the stomach is disturbed, expecting it to benefit the patient in that way too. Scarcely any other exceptions would I take. I want to speak on a subject that is simply alluded to in the paper, in reference to the existing method of shot-gun quarantine; is there anything as horrible to contemplate as the present state of affairs? and too, it may seriously be questioned whether the purpose of quarantining is accomplished? I believe that measures should be adopted by the government to prevent such extreme quarantine regulations. I am sure that the South is suffering more from the quarantine than from the scourge.In order to determine whether it is safe to admit people into the states, I want to ask your attention to the history of the disease as it occurred in our own city. During the epidemic of yellow fever in 1878 in Louisville, great numbers of the infected people were received. We had our boarding houses filled by means of its refugees; not only that, but we were impressed with the teaching of Dr. Bell that that altitude prevented the spread of the infection in that neighborhood. Very soon after these refugees came to us, we opened a yellow fever hospital, conveniently situated outside of the city, where we treated about 90 cases with the average mortality. Possibly 50 or more cases occurred about the city of Louisville. We had more than 30 nurses, many ladies doing charity work and doctors and attendants who where in constant contact with the cases—one of the physicans as resident surgeon occupied his entire time, even to the detriment of his health, by the attentions he was giving in examination with the microscope of various secretions and excretions, and in addition, he made 12 or 15 minute post-mortem examinations. What more accurate conditions for the production of the disease could be given? Out of all this number, associated with the yellow fever patients, neither a nurse nor a physician nor any one developed a single symptom of yellow fever. There is a little additional history in connection with this. Previous to this, we had thought that an indigenous case could not be developed in the confines of Louisville; unfortunately however, in one of the places where infected trains were stopped and cleansed, within less than three squares of this, we had of our own citizens, 20 or 30 cases with the symptomatology comforming to those of imported yellow fever cases. None of these had any communication with the hospital or with any person sick with the disease; they came in contact with the luggage of the infected patients; so we therefore had

to quarantine against the luggage instead of the patients themselves. So we were inclined to say to them: "we will receive you, but not your clothing; we will give you clothing."Let us say that the baggage shall not come in; we are ready to take the risk and we can invite those people to come. Some excuse possibly should be offered on the part of such cities as Memphis that were so terribly afflicted before.

I believe that to-day the immediate interests of the country are to stop the shot-gun quarantine, and to establish one that refers only to the disease itself.

Dr. Wm. M. McPheeters.—The subject of interstate quarantine is of great importance and I have some experience in that respect. Prior to the war I occupied the position of surgeon to the United States Marine hospital service for several years. Cases of yellow fever occurring among the deck hands were frequently brought to this city and taken to the Marine hospital and placed in the fever wards where there were other patients. Some died and others got well. No mention was even made of it in the papers; it caused no excitement, and yet the yellow fever at that time was the same as it is now. But the country was not crazed then as it is on the subject of contagion now. The South is suffering more in reputation by this craze than it is from the yellow fever; it paralyes men, and consumes all their feelings of compassion.

I honor the people of Louisville and elsewhere who leave the latch-string on the outside,—an invitation for the sufferers.

Dr. Geo. Homan.—There are many here who are abler to discuss the question than I am. I have the following resolution however, which I herewith offer for adoption:

Whereas, The existing deplorable condition of a considerable portion of our southern territory induced by the spread of epidemic disease and the alarm thereby caused; believing it to be the duty of this association in view of the pressing exigency to take every step possible to allay panic and reassure alarmed communities and states. Therefore, be it resolved: That a committee of not less than five persons be appointed by the president to consider the present situation and report to this association at a subsequent session what action in their judgment should be taken to secure the designated end.

The resolution was adopted.

The committee on yellow fever presented the following report which was unanimously agreed to:

Resolved, That it is the sense of this meeting that yellow fever is not contagious in the ordinary sense of the term; that it can not be communicated from the sick to the well, except in an atmosphere containing germs.

That the mildness of the present yellow fever invasion, and lateness of the season, warrant us in strongly deprecating the fear now existing in many southern communities, the present rate of mortality being not greater than that which ordinarily obtains in typhoid fever.

That the self-imposed quarantine regulations now in force in the states north of the infected districts are not only absurd, but inhuman and unworthy of the age in which we live.

That quarantine regulations, to be effective, should apply to the baggage, clothing and effects, rather than to the person of the individual.

That when such effects come from infected districts they should be destroyed by fire and the owner reimbursed from public funds.

That cities and towns to the north of such districts and upon lines of travel may safely provide hospitals for the reception and care of the sick.

Geo. Homan, m.d., Mo.
J. A. Larrabee, m.d., Ky.
J. D. Griffith, m.d., Mo.
David S. Booth, m.d., Ill.
G. A. Collomer, m.d., Ohio.
Geo. N. Kreider, m.d., Ill.
A. P. Wasterfield, m.d., Tenn.
A.W. Williams, m.d., Hot Springs, Ark.
Committee.

Dr. Comegys.—I certainly agree with what has been said on the non-contagious nature of

the disease. It is the clothing that spreads the disease. If a man be taken from a yellow fever district, stripped of all his own clothing and given a new outfit, there is no danger of catching yellow fever from him. I did not speak sufficiently in the paper on the method of choking out the fever. Regarding the question of complications that we find in contagious diseases that arise from the choking of the eliminative organs, I have met it in typhoid fever and other infectious diseases; I have found the patient delirious,with a slow pulse and subnormal temperature, and it has then been perfectly clear to me that that man had albuminuria. The immediate thing to do is to open the skin and exterminate the albminuria.

In the first case of diphtheria I ever saw I got my idea of the terrible import of subnormal temperature. When I would find a good pulse, easy respiration, etc., I would say that the child was doing well, even though a subnormal temperature existed. But on returning in the evening I would find it dead.

In the puerperal state where convulsions supervene, we know that the hot bath is the hope held out to the suffering patient. A little boy patient of mine up in the state of Missouri had a chill one Saturday, which recurred as a common intermittent. He got better but the next day there was a return of the fever and again another and he died Tuesday evening. That there was suppression of urine was all I could learn.

TUESDAY, SEPTEMBER 25.—AFTERNOON SESSION.

DISCUSSION OF INFANT FEEDING.

DR. LARRABEE.—In connection with this subject, there is another thing which should be considered along with it, the deterioration at the present day of our women on account of over-stimulation so common now. Up to within the last few years the question of infant feeding was hardly considered, because of the fact that mothers were able to nurse their own children. This is not the case now, and the question of infant feeding has taken a very important place in medical science. Of course no food has as yet been found to take the place of the natural supply, and I think I can safely say that none such will be found. As the nearest approach to this natural food however, I would choose the good old-fashioned family cow. Pure milk fresh from the cow is the best.

It is difficult to reconcile ourselves with the idea of condensed milk. It must be considered that this preparation is only condensed four times; consequently when we find a mother, advised to use condensed milk, taking a teaspoonful, stirring it in a pint of water, this solution only looks like milk; the color is that of milk, but when the baby gets it it does not supply the want. There is not enough sustenance in it.

The best of artificial foods, the hydro-carbons, is Mellins' aqueous food. This requires an addition of milk, and herein an objection comes. When a calf receives its milk directly from its mother, it thrives, grows fat, and is quite healthy; but draw the milk off from the cow, set it aside and then feed it to to the animal, it will be observed that it does not agree so well. It grows thin, sickens and finally dies. It is the same way with the babe. If it receives its nutrition directly from the breast of the mother. it too grows hearty, but if the milk be drawn and fed to it, it is not digested and absorbed with equal ease.

The reason for this was formerly not understood;since the advent of the germ theory, studies in this direction have elucidated many difficulties before unsolved. The milk when fed immediately is obtained from a sealed enclosure and has no chance for microbic infection from the atmosphere. That set aside, however, is infected and is not as healthy as before. Therein lies the secret of the disturbance produced by it when fed either to the calf or to the child as added to any of the baby foods or when given alone.

Therefore the old summer-complaint idea has got to go to the wall. That idea which looks to dentition in the second year of child

life as the cause of all alimentary disturbances must be dispensed with, and the above theory substituted.

Another point in artificial feeding and an important one, is that in almost every instance of artificially fed babes, they are overfed. It is exceedingly difficult for the mother or nurse to distinguish between the cry of colic made by a stomach distended with food and the cry of hunger; and in the the doubt in this case there is no more convenient a stopper than the bottle, and consequently that infant is continually overfed.

By proper care in raising the temperature of the milk to a degree that kills the organism above alluded to, their entrance into the milk may be prevented, and my practice in this respect has been very successful.

It ought to be known that every cry is not necessarily for food; every infant ought to have water, and not always food, but it ought to be known also that the child requires a little salt now and then, the latter ingredient has done more in my hands in facilitating osmosis than all other medicinesI have used. And another point; the artificially fed child is kept always upon one diet; the mother who nurses her babe, gives it such diet as accident or inclination may decide, and the child feels the benefit or injury of such changes. It has been my experience that whoever changes his foods will have success directly afterward. I have two children who have in a year and a half taken 1248 cans each of condensed milk, and these are happy and well. Before that they had been half starved- The whole subject as regards these artificial foods may be summed up, that at the present time the foods presented require the use of milk as an addition; must also require the additional care of sterilization so that it is frequently the milk and not the artificial food that is causing the disturbance. Some foods, such as Nestles' and Mellins' are already sterilized, and it is theoretically, and as I believe, practically a fact that these present less of those objections. The whole subject of infant feeding is one which ought to be discussed at length, and I would rather hear from those who have had experience in using a whole artificial diet.

Dr. E. P. Cook, of Mendota, Ill.—I have usually been so fortunately situated that when Nature has failed to supply the wants of the human offspring, my general resort has been to that which to my mind comes nearest to the mother's milk, that of the healthy cow. I only will add, that in my own observation those means that keep the milk in as pure and perfect a condition as possible with as little addition or change, by means of anything to preserve it in good condition, I mean, sir, as we ordinarily observe the sterilization of that milk that is intended to be given to the human infant, is one of the important subjects aside from the care in the selection of the healthy cow from which we obtain it. Of course the milk of the healthy mother is best, but where it is necessary to make a substitute, let it be that of the cow. I don't know much about the various devices for keeping milk in good condition, but I am confident that if it is taken quickly and subjected to heat, placed in conditions where there is little or no chance of atmospheric infection, we have in that case the best thing as substitute for the mother's milk. I have been in the habit of immediately closing milk in fruit jars, placing it in the ice-box and keeping it there until it is drawn upon. I know but little about those various substitutes of artificial food etc. I am glad to say I have had very little necessity to become familiar with them.

Dr. Mayfield, of St. Louis.—I have adopted a method of sterilizing milk that has worked satisfactorily with me for 12 months. I took the suggestion from the Bowman Milk Company; the milk is sealed as soon as taken from the cow, then to sterilize this I have a water tank. We heat the water for 24 hours, keeping it at the boiling point, and this water is first purified before it reaches a receiver by running through charcoal, and from there we draw it directly into the milk, making the preparation half water and half milk, adding sugar as necessary. I have used the various preparations

of food as they come from the manufacturer, and a great many of them have given considerable satisfaction, but not as much as the milk prepared as I have stated.

Dr. N. Guhman, of St. Louis.—It seems to me that the previous speakers have forgotten that the condition of the stomach of the child has a good deal to do with the diseases of the children. If we would make more use of antiseptics with the digestants, it would be better. Even the milk of the Illinois Milk Company, which is as good as it well can be, will sometimes fail to agree with children. You have to find out what it especially applicable in each case; it is the same thing with ourselves, we don't digest the same things in the summer that we do in the winter.

I believe the simpler you treat children the better. A little bit of cream and water sometimes will be more easily assimilated than milk. There is more in the digestive organs themselves than in the food. I have noticed that there is a peculiar odor attached to children who eat much of starchy food, and those children are apt to take cholera infantum.

Dr. H. H. Middlekamp, of Warrenton, Missouri.—In addition to the mother's milk it would be well for us to engage nurses to supply human milk.

I have tried Dr. J. Lewis Smith's method of peptonizing milk; you will find it in Pepper's System of Medicine, II volume. He uses extract of pancreatine and bi-carbonate of soda, puts it in milk at a temperature of 98° or 100°and allows it to stand,the peptonizing process taking 15 minutes, when it is either fed to the baby or the process is arrested by putting it in the ice-box. It is our duty to look after the cow, in order to see that the cow is healthy and not liable to a tubercular affection. I live on milk a great deal myself, and I should hate to live on milk from a tubercular cow. Milk from a young, well fed cow is the best.

Dr. Wm. Bailey, of Louisville, Ky.—There is danger of doing harm to the child's nutrition by taking away from it the function of digestion. As we increase the power of muscle by its exercise, so we should increase the power of digestion by requiring digestion. When it can possibly digest we ought to require it.

Dr. Middlekamp.—Perhaps the gentleman is laboring under the impression that the milk, when prepared as I mentioned, is changed. That is not so. The milk is only humanized.

Dr. Larrabee.—In regard to the question of medication of infants, I am directly opposed to any medication with them. They are not born with livers to be moved by medicine. The introduction of morbific material causes these troubles that these gentlemen spoke of and there is no need to give antiseptics unless septic material has been introduced. I certainly endorse what has been said in regard to the artificial digestants and especially the introduction of ferments into the stomach, which have essentially the same effect as microbes. Pancreatine is a ferment, and much of it is disgustingly putrescent. I simply endorse what Dr. Bailey has said, and I am glad he included adults as well as children. There is an ingredient which may be added to the milk which in a degree prevents caseous degeneration and makes it more easily digested, although it is starchy—and that is the addition of simple barley. I have had more benefit from simple barley water in infantile disorders than from any other one thing of that kind. The milk is often too heavy, is drawn too frequently; let there be longer intervals of drawing the milk or use barley water to thin it.

Dr. Beard, of Chicago, read a paper on "Diseases of the Middle Ear," which we will give in a later issue.

Dr. Dickinson, of St. Louis, discussing the same, said: I think that this disease as a general thing is neglected. I will give the history of a case under my own observation. Many years since, a boy of five years was brought to me. During the period of dentition, otorrhea had commenced. The mother then called the attention of the family physician to the discharge; he pulled the ear to one side and said: "Oh it will pass off." No

attention was paid to it until some years afterwards. At the time I saw the patient, this physician had deceased. On inquiring I learned from the mother that at times little white substances had passed, and so probably all of the ossicula had come away. There was total occlusion of the meatus, and hearing was totally destroyed, rendered so by this closure. The other ear was similarly affected but not to the same extent. Treatment within a short time arrested the process. Dr. Beard made a remark regarding the suppurative conditions of the middle ear; that that they do admit of cure but the chance is not always given. A physician told me he had six cases which terminated fatally during the winter, therefore these affections of the middle ear are not trifling in character, and therefore deserve the attention of the general, as well as the special, practitioner.

Dr. Dan A. Thompson, Indianapolis.—In regard to the catarrhal affections the time we usually look for them and their causes is in early infancy; they then develop this tendency and are subject to the changes in temperature; then is the time for the general practitioner to look after them. Some of these suppurative affections seem to yield to no treatment.

The President.—The presence of dis charge from the ear should awaken suspicions that should reject an applicant for life insurance. I knew a man not long since who in apparently good health, died within two weeks from a perforating abscess into the brain.

Dr. Beard.—About all I have to say is in reference to the curability. I don't question the incurability of some cases, and I agree that some seem not to yield to the treatment I have mentioned, but it has been my experience that they were as a class a very satisfactory kind of diseases to deal with. The most gratifying part of my practice has been the cure of such cases.

Dr. Wm. Dickinson, of St. Louis, read a paper on "Retinitis Albuminurica."

The details of a case presenting the characteristic features of this affection was related, occurring in a lady of 40 years of age, the mother of several children, the youngest being 15 years old. The invasion occurred suddenly in the left eye in February of the present year. Vision gradually declined with it and in the space of two months was almost totally annihilated. On May 26th without obvious cause the right eye, previously unimpaired, became similarly affected and in the short space of six hours vision was so far lost as to be able with it to distinguish only the outlines of large objects. Catamenia somewhat irregular, but never were their return suspended more than two periods.

Urine was scanty: no more than one pint being voided during twenty-four hours. A sediment was deposited, but its character was not satisfactorily ascertained. A specimen could not be obtained, as the patient returned to the country on the same day.

The external appearance of the eyes was entirely normal, therefore the ophthalmoscope was the only means by which the occasion of the existing impaired vision could be ascertained. With this instrument the distinctive phenomena of Retinitis Albuminurica were readily detected by large hemorrhagic effusions in the retina, in some instances assuming a fibrillated aspect, with brush-like terminations. Also white dots, punctiform either aggregated in clusters or assuming a striated arrangement. These appearances indicate hypertrophy and fatty degeneration of the fibres of Müller. These constitute the anatomical medium of communication between the bacillary layer and the ganglionic cell layer. In consequence of this hypertrophic condition pressure is exerted upon the bacillary layer and thus incapacitates this layer of rods and cones for the normal reception of visual impressions.

The presence of this affection simultaneously with the pregnant state was to some extent discussed and the urgent necessity for immediately inducing premature labor, if it occurs during the seventh month of gestation or earlier, in order to avoid blindness or death from convulsions which so frequently ensue. The nearer the termination of gesta-

tion the less the danger. Should it occur during the ninth month recovery of normal vision usually occurs after delivery: if in the eighth month and the induction of premature delivery is not performed, only one-half of the cases recover; if at an earlier date blindness or death frequently occurs, the danger of the supervention of these events being pro portionate to the time of its invasion prior to the time of normal delivery.

The great practical lesson to be derived is never to disregard or underrate the significance of progressive failure of vision, especially when the cause is obscured for the more obscure is the cause, usually the greater the danger. Early recognition of the disease and its cause insures earlier appropriate treatment and better result, since cures sometimes and very often amelioration of the condition is effected. If treatment, prompt and proper, for any reason is delayed, the delicate structures involved become so much changed in their condition as to render restoration of normal structure impossible, and consequently the return to normal vision hopeless.

Dr. Bailey, of Louisville.—I would ask you to widen the aspect of Bright's Disease, not as simply a disease of the kidney; the kidneys are not only involved; it is a general systemic disease, and hence this affection of the eye I would be disposed to regard rather as a part of the general disease than as a complication.

Some of these diseases are recognized more quickly in the eye than in the kidney. We simply call them Bright's disease because Dr. John Bright first described them. I believe it is constitutional always, in which there is connective tissue hypertrophy, resulting in hypertrophy of the left ventricle. I don't believe that a simple obstruction in the kidney would account for all the vascular changes.

I am inclined to take issue with the management of this disease as it occurs in pregnancy. I would put it on the same basis that I would a threatened convulsion due to the same cause, and I believe we can treat satisfactorily not only the disease, but by increasing the elimination from the kidneys we can save the patient from disastrous results and carry her to full term and delivery. So I would question the positiveness of the assertion that we do not wait a single hour, but remove the offending cause.

Dr. Dickinson.—Of course this subject has so many relations and aspects I cannot base a response on the results of experience, in all the diseases from which it arises. I have no practical experience in this connection with pregnancy, and consequently I have to take the testimony of others; and authors on this point have been very emphatic in regard to the production of premature labor in such cases.

Dr. D. R. Brower, of Chicago, read a paper on "Exophthalmic Goitre and Its Treatment by Strophanthus." He reported good results, and recommended further use of the drug by the profession.

Dr. Dickinson.—In this disease the vasomotor system has lost its control, and then we have the action of the heart irregular and frequent. The writer speaks of a case in which the pulse reached 116. In a case which I recollect it was so frequent that it could not be counted. Strophanthus was not used. I had to fall back on what my ingenuity could devise. I used digitalis and the galvanic current, by which the pulse was reduced to 82, and at one time to 68, after a few days.

Dr. F. R. Fry, of St. Louis.—I don't know that I can say more than to thank Dr. Brower for the report of his cases and for his remarks on strophanthus. I was anxious to hear what he had to say, and the experience that he has gained seems to be that it is well to use this remedy, and especially in epilepsy. I shall avail myself of its aid when the opportunity presents itself.

Dr. Brower.—I would like to thank the gentlemen for the reception they have given me, and to make the request that they try strophanthus, not only in this disease, but also in sick headache, epilepsy, etc. It seems to me that the remedy has power, especially in diseases where there is disordered nutrition of the medulla.

SECOND SESSION, WEDNESDAY MORNING, SEPTEMBER 26.

DR. C. S. BOND, of Richmond, Ind., read a paper on "Conditions Which Precede Serious Lesions of the Kidney." Dr. Bond's paper was a valuable one. He assumed the position that long before organic kidney lesions were to be discovered there were changes in the blood as to quality and physiological elements sufficient of themselves to lead the careful practitioner to a proper appreciation of his case.

No ailment complained of by patients was too trifling to deserve the best ability of the doctor in its correct diagnosis, and seemingly slight indispositions, continued for any length of time, were to be regarded with that amount of suspicion necessary to procure for them the most searching inquiry. Pains in the back and loins, susceptibility to the influences of cold beyond a normal condition, pain or disagreeable feeling in the eyes upon their exposure to light, abnormal sounds of the heart, not pronounced enough to be designated as due to organic disease, and tendencies on the part of the various organs to disturbances of function.

He dwelt at length upon the circumstance of an increased quantity of urea in the urine, and urged the diagnostician to inquire diligently into this, as many times a diagnosis could be made sufficiently early to abort a commencing Bright's Disease or other malady as disastrous in its results.

In answer to a question asked by Dr. J. D. Griffith, of Kansas City, Dr. Bond stated that unless the practitioner had special facilities for making an examination of urine, he would do well to employ an instrument devised by Parke, Davis & Co. for detecting urea, and separating it from the urine with the aid of a solution of chlorinated soda.

DR. GRIFFITHS, of Kansas City.—I was quite delighted with the paper and I think this examination of the urine for urea should be practiced a great deal more than it is. I have recently made it a rule to examine the urine of every patient that comes in the office, especially if there is anything of a serious nature the matter with him. If Dr. Bond would just give us a method of estimating rapidly the amount of urea excreted in 24 hours, so that we could get at it quickly in the office, it would be practiced to a greater extent than it already is. I know from his paper that he must be a busy man, and if so, he must have a ready method of getting at it.

DR. LARRABEE.—There is no more important subject for the consideration of the profession than this, and I must commend the presentation of Dr. Bond's ideas as he has expressed them. The prevalence of this disease is generally accepted to be on the increase. The fallacy of this belief may be explained by remembrance of the fact that they are better understood and more readily diagnosed now than formerly. It is doubtful whether the patient is in more danger from the disease than from the doctor who makes his diagnosis of the disease or eliminates it with the spirit lamp and nitric acid. And we ought to do more in the particular line that Dr. Bond has indicated. No man supposes when he unbuttons his vest from distension induced by indigestion, or when he suffers from neuralgic pains, dimness of vision, etc., that he is on the outer borders of Bright's disease. Its frequency may be shown by instancing the fact that out of some 340 examinations of urine in a London hospital, half of the number, about 170, were found to have evidences of distinct lesions of the kidney. This brings the disease next in importance to that spoken of by Dr. Porter, tuberculosis. And it is an extremely interesting one. I hope, for the benefit of the Association and of the public, that while we may be more infatuated with the study of infectious diseases, this subject will assume greater prominence, and I move that a committee be appointed to report on this topic every year, and that Dr. Bond be made chairman.

DR. BOND.—In regard to the examination for urea, there are some simple methods which any doctor can make within ten min-

utes' time, especially if he has given the subject some attention. One of the elements of the compound, urea, is nitrogen. This can be driven off by means of chlorinated lime. If we know one element in a compound we, of course, know the whole; then if we know how much urine is passed in 24 hours the rest is easily estimated. There is a simple instrument, made by Parke, Davis & Co., that is quite accurate. I worked with it two years to be certain about it. With reference to the other qualitative analyses, I found that it was quite accurate, sufficient to make approximate estimates.

I hold that the disease is a constitutional one. I would not say that these persistent symptoms are the result of the disease of the kidney, but I do believe that there are in the blood these poisons; the patients may have retinitis, endocarditis, etc., all from the disturbing influence of urea contained in the blood. You cannot put the patient off on his first visit—you will have to say to him that "since you have these manifestations of the disease you must save your urine accurately for 24 hours and bring here a specimen from this whole quantity that I may examine it before I can make any prescription for you whatever." Generally the busy practitioner does not think he has the time for such examinations and the patient goes off and thinks that nothing can be done for him; the disease gains ground and gets beyond control.

In regard to the solution of chlorinated lime it is better to make it yourself; put six ounces in a quart of water, that will be a proper solution to use, but if you are not careful, the chlorine will escape, and then the solution iu making the test will produce less urea.

Dr. Joseph Mathews, of Louisville, read a paper on "Obscure Rectal Diseases." See page 365.

Dr. Cook, of Indianapolis.—I highly commend the paper of Dr. Mathews, and I am convinced that he is fully able to discuss the subject. I am surprised that Dr. Goodell should have written the paper he did. It reminds me of the papers read so long ago when the readers tried to cover their ignorance by clothing in some ambiguous name a disease, the origin of which could not be, or was not, found. This disease, formerly recognized as hysteria, is now known to be the result of anatomical lesions, and these troubles that Dr. Goodell calls hysterical, will be demonstrated to be from local diseases. Neither must we conclude that the disease is necessarily in the rectum because the symptoms are manifested there, as Dr. Mathews points out. The irritation may be reflected from some neighboring organ or vice versa, as in the case which I will cite: A woman had pain in the uterus; I examined it and could find nothing the matter with it. An examination of the rectum disclosed a tender spot, which was treated locally and with a perfect result. It is the exception to have pain located in the rectum when the trouble is confined to the upper part of the rectum. Contraction of the sphincter may be brought about by reflex irritation from troubles in the surrounding organs. We require a special operation for its relief, although the disease causing it is relieved. In protracted cases, although the original cause is relieved, the contraction has become permanent and this also has to be treated before it is relieved.

I don't believe in the hysterical rectum. I have never seen a case yet but what I could find the local cause, and when that is relieved all this hysteria of the rectum is relieved; just as in former years the cases that we treated for hysteria are now cured by Battey's operation, and so with the rectum. When it is fairly examined I think all of that will be found to be due to some local lesion either in the rectum or in the surrounding parts.

Dr. Pittner, of Jacksonville, Ill.—I wish to express my admiration of the paper presented by Dr. Mathews. I am very glad that the advances have been so well presented, in the local examination and treatment of this disease. I agree that they are more largely due to local causes. I would not abate one

word of what he has said nor detract from the importance of that view of the subject. We cannot be too careful in our investigations. We must be careful to take in all the elements of the case if we wish to arrive at the proper and correct view. I read Dr. Goodell's paper with great pleasure and appreciation, and I am not prepared to speak of it in the way that it has been disparaged here to-day. There is a large amount of truth in it and if we get at it we shall have to take into account some other things. There are some conditions which cannot be fully accounted for by the local conditions found. Why are those local conditions there? Are they not from some fault of nutrition or some circulatory disturbance? Whilst the local feature may be a secondary cause, do we get at the real cause by treating it locally? We cannot say, therefore, with perfect correctness that it was the cause, the whole of the cause. I believe that in the majority of cases there is also a previous condition which is general in its character, and which we should attend to, and in treating the general conditions also we shall get better and more permanent results. I have often seen this irritable rectum associated with the general neurotic habit and a disposition to spasms.

Dr. Early, of Pennsylvania.—The paper as read by Dr. Mathews meets with my approbation.

Dr. Mathews.—I want to say in answer to the just criticism of Dr. Pittner, that I fully recognize the general conditions of which he speaks, but I maintain from clinical investigation that this condition of the nervous system is secondary to the local trouble in the rectum. I have yet to find a single case of so-called irritable rectum that was not relieved by curing the conditions in the rectum.

Dr. Cook brought out the point that this condition cannot always be discovered by a simple examination, either with the finger or with the speculum. I have a case now in which I found this lesion seven inches up the bowel; consequently if I fail to find the lesion with a short speculum, I use the longer one afterward. This general condition is well recognized, and with sheer neuroses we sometimes have remarkable symptoms; but I don't believe that the probability of the origin of the disease in a local condition should be passed over.

Dr. H. H. Mudd, of St. Louis, read a paper on "Contusions and Lacerations of the Kidney."

Dr. Mudd gave in detail several cases, in one of which a boy aged 5 years had suffered a contusion, which on the 51st day day after injury required nephrectomy. The operation was made through a lumbar incision, patient making a good recovery.

He then called attention to the fact that in these injuries the peritoneum was not, as a rule, injured, and that a fluid tumor gradually developed in the lumbar region on the side injured, in one case observed after the lapse of 14 days, and in another on the 24th day. In another of these cases, although urine had no doubt been present for many days in the retro-peritoneal space, but little inflammatory trouble had developed. In another case the patient was up and about, comparatively comfortable before the time of development of the tumor.

Dr. Mudd also called attention to the fact that a contusion without serious laceration of the kidney, but accompanied by a perinephritic hemorrhage might present all the diagnostic symptoms of a rupture. On the other hand, a destructive laceration of the kidney-substance is slow in developing characteristic symptoms. It appears from the recorded cases that there is ample time for investigation of the cases before operative interference is demanded. This is true where the peritoneum is extensively torn.

The dangerous conditions which may develop during the progress of such cases are shock, septicemia, cystitis, with extension of inflammation through the bladder to the other kidney and nephritis of the injured organ. Suppression of urine in both organs may occur during the presence of one or more of these conditions. A destructive unilateral nephritis may develop in the contused organ. Cuts, bullet wounds and tears of kid-

ney-substance heal quickly. A laceration in pelvis of the kidney or the ureter is much more likely to leave an unattractive fistula. Incision with inspection of the injured organ and drainage are to be recommended before extirpation is resorted to. A laceration of the kidney may occur without external evidences of injury.

Dr. Dixon, of Kentucky.—The doctor's paper calls to mind the case of a man who was thrown from a wagon across a stump. He had hematuria, pain in the loin and back. At first it was thought to be a rupture of the bladder, but the introduction of the catheter and other means disproved this supposition. I was called to examine the case and made the diagnosis that possibly the pelvis of the kidney had been injured. The patient grew worse and finally went into a sort of typhoid condition; there was no tumor, he died 23 days afterward. The autopsy showed that there was laceration through the pelvis of the kidney three inches long. If the diagnosis had been certain, and this operation, or even nephrotomy which should precede the greater operation of nephrotomy had been performed, I think it possible that the patient might have recovered. Nephrotomy should always be preliminary to nephrectomy in such cases. If you have pus there, your drainage draws off the pus and puts the patient in better condition for nephrectomy.

This case related by Dr. Mudd was interesting. I don't understand how it could have gone on so long without any tumor being present. There must have been an obstrnction of the ureter, as he says. The exploratory operation and the drainage ought to have put the patient in better condition for a successful operation.

Dr. H. C. Fairbrother, of East St. Louis, Ill.—The difficulty of repair, the slowness of repair to injuries of the kidney is apparent to all who have had any experience in this kind of trouble. If nephrectomy comes to our relief, in this dangerous condition of things, it is a boon to mankind. So far, statistics of nephrectomy are not favorable to that operation. Admitting the great danger following rupture of the kidney, still that of removal of the kidney does not offer us much inducement. We also are often in doubt as to the lesion present. Like other internal lesions it is slow to repair, partly on account of the lack of exit for the exuded fluid and from the lack of means of application of antiseptic dressing. I remember a case which occurred in my own practice not long ago. A man met with an injury in a railroad accident. The injury was directly over the left kidney; hematuria followed within a few hours. The evidence of rupture of the kidney was satisfactory and cemplete; tenderness, fluctuation, typhoid condition, profuse perspiration and occasional rigors, showing that suppurative action was taking place. There was occasional pus in the urine and frequently blood. This condition continued through about three months up to a late day when the patient died. It is possible, even probable, that a removal of the kidney might have resulted favorably.

Dr. Halley, of Kansas City.—I was interested in the paper especially for the reason illustrated by the remarks of Dr. Fairbrother; it is usually thought to be an injury beyond the possibility of repair. We ought to deal with such cases rationally; the kidney is no more dangerous an organ to handle of itself than a great many of the organs we are constantly removing. We remove the ovaries, uterus, etc., with impunity. We are careful not to disturb the renal ganglia in performing this operation, and when attention is given to this point, the kidney may be removed with just the same impunity that you remove the other organs. Unquestionably the kidney should have been removed in the case related by Dr. Fairbrother.

You can frequently do it best by laparotomy. I have done three of these operations; two lived. The abdominal incision is very much the easier of the two; in cutting through the side you are compelled to push the intestines so far back that you are then crushing the renal ganglia to an extent that is not required, if you make the abdominal incision and hence there is less shock by this method.

You are in a better position to secure the pedicle; it is a difficult matter to get sufficiently below the costals to perfectly secure the renal vessels and unless you do that you have secondary hemorrhage. But you can make the exploratory incision in the back if you please, because if there is pus, you will also have to drain. I make a medium laparotomy, closing the incision through the peritoneum with cat gut and it heals without any further trouble.

Dr. A. M. Owen, of Evansville, Ind.—The question is interesting to me. I wanted to correct a mistake that Dr. Fairbrother made; he said that a majority of nephrectomies were unsuccessful; I think that is a mistake as the majority of them get well.

The essential point in deciding on a nephrectomy is to decide whether there is disease of the other kidney. I was surprised to hear our friend from Kansas City say that it was better to make an abdominal section in these cases.

Dr. H. H. Mudd.—The observations of the dissecting room have for many years confirmed the opinion that one kidney is sufficient for life, the one remaining kidney undergoing compensatory hypertrophy. One point of special interest—and it was a revelation to me—the case happened 12 years ago; a patient received a fall and one of his kidneys was torn entirely in two, there was also a thin portion, detached, lying loose in the cavity, so that there were two lacerations extending through the substance of the kidney. The patient had no evidence of external injury. This is my point, you may have serious injury to the kidney with but slight external evidence.

The repair of injuries of the kidney was not understood well until the last few years. The general understanding of the profession at present is, that repair of these surgical injuries takes place rapidly.

The fatality of nephrectomy is not very great; the fatality has been due rather to the disturbance produced by the lesion than to that of the operation itself.

As to the method of operation, the lumbar incision is the preferable one as it gives a better opportunity for observing the kidney. If you make the incision only a little forward you cannot see enough. That the tumor in this case developed late, not earlier than the 23rd day, I am quite positive; I was watching for it from the beginning. There was only a little thickening, up to that time, about the pelvis of the kidney. Then, he had recovered from the fever and his general condition was good, as he was moving about the house. Quite suddenly one morning I noticed the presence of the tumor large enough to hold a pint of urine, and I withdrew 12 ounces. An interesting clinical point, which I have observed, is that we may have, in the tissues about the kidney, urine extravasated and remaining in the tissues without inflammatory processes, for many days.

Dr. Geo. J. Cook, of Indianapolis, read a paper on "Absorption of Water by the Colon," which is reserved for publication.

Dr. Owen.—The advancement that has been made in the diseases of the rectum and kidneys and their means of diagnosis are of special interest because they have been made within the last few years. It has been doubted that the colon or rectum would absorb anything, and hence this subject was thought to be worth no attention. The first time my attention was called to this, was when I injected a large quantity of water and the patient told me that the water didn't come out through the bowels, but had returned through the bladder.

In reference to the treatment of diseases of the kidneys by this means, it has impressed on my mind the fact that so many people go away to watering places and return claiming that they have been cured by the Spring. It is not the character, but the quantity of water, which they have drunk. I think people drink too little water. If they would increase the amount of water ingested they would be better off.

Dr. Thackery, of Chicago.—The portion of Dr. Cook's paper relating to the diuretic effect of water is what I want to speak of. I have considerable experience in the use of hot water in the colon. It has been my ex-

perience that nothing was added to the urine in the way of solids. I have examined the water after this diuretic action, and in no instance have I found any increase in the solvents or other solid constituents of the urine. Therefore I look on the beneficial action spoken of as rather theoretical as yet.

Dr. Bond.—I would like to ask if the doctor has made examinations regarding the amount of urea present.

Dr. Thackery.—Yes, and I have noticed no increase.

Dr. Bond.—That does not correspond with my experience. The gentleman states that to inject large quantities of water into the colon ought to prevent fecal impaction. It will prevent impaction, but I cannot see why the patient could not take the water by the mouth —it would have exactly the same effect. A great many people go off to some springs and drink water, come home well, and for two reasons; they have the rest, and drink large quantities of water and pass large quantities of urea. If they will drink enough water at home, they will get well just as soon. It is because the waste material in the blood is gotten rid of.

Dr. Mathews.—This to me is an interesting subject. It is the first paper I have ever heard read on the subject. The gentleman following Dr. Cook seemed to have used the same kind of treatment for the same purpose, but I have not seen it recorded.

There was one point that was incidentally referred to, and that is that we are in the habit of giving rectal injections and we have been surprised that there was no absorbtion by the rectum of anything that was thrown into it. In my practice I have been in the habit of throwing it into the sigmoid flexure. The mistake has been in the use of short tubes that only carry the water into the rectal pouch and not into the sigmoid flexure. When we wish to treat constipation we should use a Wales bougie and throw the water into the colon or the sigmoid flexure. I wish to commend the paper as being original in many respects.

Dr. Geo. J. Cook.—In regard to the increase of the urea, I said that the introduction of the water will wash out the kidneys; this has reference to diseased kidneys. If there is too much urea in the blood it is because it is not taken out rapidly enough. I have reference to an unhealthy person; but if there is no more than a natural quantity of urea in the blood, it will not be taken out; but when the blood contains too much urea this washing out of the kidneys will surely put the kidneys in a better condition to perform their function.

The afternoon programme was opened by Dr. Wm. Townsend Porter, with "A Demonstration of the Effect of Cold, Applied to the Abdomen, Upon the Tracheal Circulation." Dr. Porter said that contraction of the radial artery followed the application of cold cloths to the arm. By a similar action, cold relieved the pain of acute inflammation—pain caused by the pressure of swollen vessels on sensory nerves. Heat also relieved this turgidity by dilating the capillary areas surrounding the inflamed part. The action of cold did not stop with the relief of pain. He did not need to describe to such an audience the vascular changes in inflammation. All knew how the blood-stream slowed, how the veins became lined with white corpuscles,how, later, blood-stasis appeared, corpuscles and serum escaped from the vessels, etc. This vascular damage might be readily repaired, even to the point of corpuscular diapedesis. Cold, by contracting the afferent arterioles, by lessening the amount of blood passing to the inflamed part, gave time for the removal of the capillary block and the restoration of the normal circulation. They saw before them four cats. The trachea of each cat had been opened with the galvano cautery knife, and the two halves held apart by hooks, passed red-hot through the tracheal walls. These precautions prevented bleeding. Each cat had a large, hot flax-seed poultice upon its abdomen. The heat so applied had congested the tracheal mucous membrane. After the members had examined the trachea in this congested condition, simulating the rs stage of an acute inflammation, the hot poul

tice would be replaced by iced cloths. They would then observe an instant pallor of the mucous membrane. Previously pink, it would become blanched in less than a minute. But this would not be permanent. After a time the red color returns, and is followed by the bluish-red of venous congestion.

An important lesson was to be learned from this experiment. Cold was a valuable agent in acute inflammatory conditions, and checked the inflammation by diminishing the blood supply to the inflamed area. But if the cold applications were continued too long, there came about venous congestion, blood-stasis, the very condition most favorable to the destructive changes which were to be resisted.

A recess was then taken, and the physicians examined the tracheas through reading glasses provided for the occasion. Dr. Porter applied iced cloths in place of the hot poultices, and the pallor and the subsequent engorgement of the veins were very evident.

[TO BE CONTINUED.]

MURRAY-GIBBS (J.) ON DIPHTHERIA AND ITS CURE BY CONSTANT BLUE-GUM (EUCALYPTUS) STEAM.—The constant blue-gum-steam treatment will cure diphtheria in all its forms—such is the result of my experience. This summer and autumn to date, I have treated 110 cases without a death, and Dr. O'Carroll 150 with one death from subsequent paralysis, whilst a colleague has lost six during the same epidemic out of about 45 cases, using other treatment.

The treatment required is to subdue the inflammation resulting from the deposit of poison in the throat, and to kill the poisonous agent. Constantly breathing warm steam can alone enable all the affected parts to be treated. Intermittent steam is like an occasional poultice to an external part. The oil of eucalyptus globulus is not only an antiseptic, but it has a peculiarity which makes it most suitable for diphtheria, in that if taken into the stomach, it reappears in the secretion of the glands of the throat. It disinfects the membrane and discharges on the mouth and throat in a very short time. Patients, breathing an atmosphere charged with it for a week, are not weakened, notwithstanding the depressing effects of the diphtheria poison. It counteracts this depressing effect; in consequence of this I have seldom to use tonics after an attack of this disorder. Children never object to this treatment, playing under their tents with their toys, and are able to take plenty of nourishment during the whole duration of the disease. I hardly ever give stimulants, and then only a little home-made wine—brandy never. In fact, I consider stimulants contra indicated in diphtheria, owing to their effects upon the heart. They should never be given early in the attack. This treatment prevents the disease spreading to the larynx. The only cases of this complication occurred 16 miles away, and in cases of grown-up girls who resisted the constant stream, but they quickly returned to it on their breathing becoming affected. The disease is prevented from spreading to other members of the family by the tent I place them under, and which is made with an open umbrella placed on the bed with a sheet over it. I have attended 54 families suffering from this disease this summer, and in 36 of these only one member was attacked. The infection is strongest after the throat is free from the membrane; of this I have had ample proof.—*Aus. Med. Jour.*, July 15, 1888.

THE *Lancet* says that scientific teaching is becoming so common that it is desirable to guard against the random, careless employment of high sounding terms. The misapplication or wrong pronunciation of a technical term may sometimes be merely a "source of innocent merriment," but it frequently serves to damage a reputation.

There are few things more pitiable than a medical man who continually "airs his knowledge" by the use of technical terms which he has no reason to believe that his hearers understand. It is well for our profession that scientific teaching is lessening the number of such unfortunates.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 15. ST. LOUIS, OCTOBER 13, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

LAPAROTOMY WITH CASES.

BY DR. H. C. DALTON, ST. LOUIS.

CASE I. APPENDICITIS, PERITYPHLITIS.

Frank S., Bohemian, æt. 23, hod carrier, entered the hospital June 28, 1888. Had an attack eight months previously similar to the present. Five days before admission, lost appetite, pain in abdomen, diarrhea, which increased in severity. Pain confined to right iliac region. At that point dulness on percussion and slight prominence, tympanites over balance of abdomen. Finger in rectum felt tumor in right iliac fossa. Operated on fifth day. Incision three inches in length over right iliac, evacuating three or four ounces of pus. Pus cavity shut off from general peritoneal cavity. Appendix cut off close to cecum, it was at the bottom of cavity half buried in the underlying tissues and strongly adherent to same. Free end ulcerated. On outside of same in pus cavity was a hardened fecal concretion; cavity curetted; washed with 1-1000 bichloride solution; stuffed with iodoform gauze. Wound healed by aseptic granulation. Patient recovered rapidly.

CASE II. PENETRATING GUNSHOT WOUND OF ABDOMEN.

Tim. M., Irishman, æt. 29, shot two hours before admission, on July 8, 1888. Bullet entered two and a half inches to left of median line, and four inches below umbilicus.

Suffering great pain; temperature 100°, pulse 98, respiration 24. Senn's hydrogen gas test used successfully, gas igniting readily. Fifteen holes found in small intestines; two V-shaped sections involving gut and mesentery, excised; Lembert sutures used; abdomen flushed with hot sterilized water, wound dressed antiseptically. Patient died an hour after leaving table.

CASE III. PENETRATING STABWOUND STOMACH PROTRUDING.

Dan. C., colored, æt. 28, fireman, admitted 12:55 A. M., Aug. 17, 1888. Stabbed three hours before admission. Was in great pain; greatly depressed; pulse weak and rapid. Wound situated two inches below ensiform cartilage in median line; two-thirds of stomach protruded which was dark-blue, almost black and covered with dirt.

Wound enlarged and stomach returned Patient vomited blood freely. Small penetrating wound of stomach found and closed by Lembert suture; blood cleaned from cavity. Patient recovered rapidly. No fever.

CASE IV. PENETRATING STABWOUND OF ABDOMEN—OMENTUM PROTRUDING.

M. J., colored, æt. 30, laborer, admitted 12:55 A. M., Aug. 17, 1888. Stabbed three hours before admission; but little pain; no shock. Wound situated at the intersection of the 10th intercostal space with axillary line. Omentum returned. Blood cleaned from cavity; glass drainage tube; no visceral injury. Patient recovered rapidly.

CASE V. INTUSSUSCEPTION.

A. G., æt. 42, dairyman. admitted at 8:20 P. M., June 5, 1888. Two hours before admission, was seized with an acute pain in epigastric region; enema gave large quantity of hardened feces. Some better for 36 hours, when symptoms grew worse. On second day laparotomy, median line. Intussusception of two inches was found in ileum, three inches from cecum, invaginated portion gangrenous in two places. Patient too depressed to stand. V-shaped resection; gangrenous spots

turned in by Lembert suture. Patient died three hours after operation.

CASE VI. PENETRATING STABWOUND OF THORAX, DIAPHRAGM, AND ABDOMEN.

Peter F., Irishman, æt. 28, horse shoer; admitted Aug. 4, 1888. Six hours previously was stabbed in the left side between 7th and 8th ribs in axillary line. Four inches of the 7th rib resected; omentum protruding through three inch incision in diaphragm. Omentum replaced; diaphragmatic wound closed by interrupted catgut sutures; drainage tube in thoracic wound. Wound packed after Bergman's method. Wound redressed and closed on second day: healed promptly. Patient recovered;discharged well Sept. 4, 1888.

CASE VII. PENETRATING WOUND OF THORAX, DIAPHRAGM, AND ABDOMEN.

Nettie S., Amer., æt. 24; admitted at 1:00 A. M., Aug. 5, 1888. Fell six or eight feet upon a picket fence. Picket penetrated in left axillary line between 8th and 9th ribs. Omentum and intestine protruding, which were replaced; considerable blood sponged from abdominal cavity; diaphragm closed with interrupted catgut suture; external wound packed after Bergman's method, drainage tube in thorax. When admitted, temp. was 100° F., pulse 110; suffering great pain. Too much serous discharge from thoracic cavity to close wound till 14th day, when it was sewed up and nearly all healed by first intention. Pulse ranged between 115 and 120 for four days; temperature above 100° for a week. Recovered and was discharged Aug. 27, 1888.

CASE VIII. ULCER OF STOMACH. PERFORATING PERITONITIS. ABSCESS OF LEFT KIDNEY.

H. R., colored, æt. 40, laborer, admitted May 8, 1888. Had suffered seven weeks with gastric disturbances; chills irregularly, vomited occasionally about an hour after eating; frequent gastralgia and anorexia. Claims to have lost 60 pounds of flesh in seven weeks. At 12:30 A. M., one week after admission, suddenly seized with intense agonizing pain in umbilical region; pulse 110; temperature 102°. Morphine hypodermically; antifebrin per rectum and cold applications gave temporary relief. Seemed some better for 24 hours, when symptoms became much aggravated.

Laparotomy, median incision from ensiform cartilage to umbilicus; sero-purulent fluid in abdominal cavity. Several fistulous tracks found near pylorus on lesser curvature of stomach, surrounded by a mass of thickened inflamed tissue. Probe would not pass through tracks. Patient too collapsed to stand excision of ulcer. Serous surface over fistulous tracks brought together by the Lembert method; toilet of peritoneum. Patient died three hours after operation.

Post-mortem revealed a large abscess involving the upper third of left kidney.

CASE IX. PENETRATING STABWOUND OF ABDOMEN. INJURY TO SMALL INTESTINE.

D. J., colored, æt. 69, (a frail. white haired old man) laundryman, admitted April 28, 1888. Wound inflicted three hours previously was situated three inches below umbilicus and three inches to right of mediam line. Patient in great pain. Two inches of discolored omentum protruded, which was covered with clotted blood. Thorough antisepsis; median incision from umbilicus to two inches of symphysis pubis; three holes found in small intestine close together; closed with Lembert sutures; large amount of blood sponged from cavity. Wound closed antiseptically; glass drainage tube left in. Patient died 31 hours after operation.

CASE X. PENETRATING STABWOUND OF ABDOMEN.

W. P., colored, æt. 23, laborer, admitted June 3, 1887. Stabbed four hours before admission; walked several blocks after injury; great pain at site of wound, which was situated one inch to right of umbilicus. Omentum protruded.

Wound enlarged. Intestines in vicinity of wound examined, found uninjured. Small quantity of blood removed. Wound closed. Patient never recovered from shock and died 86 hours after operation.

CASE XI. STRICTURE OF DUCTUS COMMUNIS CHOLEDOCHUS—CHOLE-CYSTOTOMY.

J. G., German, æt. 45, laborer, admitted July 5, 1888. Suffered many months with pains and swelling in right hypochondriac region; extremely jaundiced, and emaciated. Pulse 48; temperature subnormal; great stupor—could scarcely be aroused.

Large, movable, fluctuating tumor two inches to right of median line, extending from border of liver to three inches below umbilicus. Chole-cystotomy; 1½ pints of slightly gelatinous, colorless fluid removed. Cause of obstruction not found. Bladder sewed to abdominal wall, leaving biliary fistula. Patient died three or four hours after operation.

Autopsy showed cause of obstruction to be a circular cartilaginous stricture in common duct an inch and a half from duodenum.

In a communication to the *Med. and Surg. Reporter*, Dr. Herain Corson, of Pennsylvania, says that he has no doubt that children have sickened and died from the effects of tobacco smoke with which the father perfumed his house.

Dr. Corson quotes a case from the *Friends' Intelligencer and Jour.*, in which a child in its second year was made seriously ill whenever it was subjected to the fumes of tobacco, and recovered perfect health when its father (who did the smoking) was away from home.

Such cases must be rare, but it cannot be denied that tobacco smoke has an undesirable odor for sick rooms.

A crazy drug clerk in the Quaker City imagined that it was his duty to add a dose of arsenic, of at least fifteen grains, to every presciption which he filled. The *Med. Reg.* intimates that the man's lnnacy was possibly due to "his vivid imagination, brooding over the possibilities in store for mankind, when picturing to himself the appalling gloom likely to follow in the wake of one of the lost arts." The lost art referred to is legible prescription writing.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, OCTOBER 13, 1888.

GUNSHOT WOUND OF THE PETROUS PORTION OF THE TEMPORAL BONE.

Mr. W. B. C. Treasure reports a case (*Lancet*, Sept. 22) in which a man, 32 years of age, fired two shots from a pistol into his right auditory canal. The bullets lodged in the petrous portion of the temporal bone. After firing the second shot the man became unconscious and remained so for eight hours. Facial paralysis followed, and the man suffered intense pain.

It was thought that the second bullet was splintered by striking the first, as pieces of one were removed from time to time during the four months following the injury, which occurred in 1884.

In June of the present year he came under the observation of Mr. A. E. Barker, who found the patient had a discharge of mucopus from the ear, which occasionally became obstructed, causing acute pain in the ear, accompanied by tenderness over the mastoid, which were relieved when the discharge became free again. He had facial paralysis, difficulty in swallowing and dribbling of saliva.

Mr. Barker had the patient placed under chloroform, and made an incision, beginning half an inch above and half an inch behind the external auditory meatus, running vertically two inches and a half upward, joined by a horizontal one an inch long at the top. The flap, including the ear, was turned forward, the bone bared and the periosteum raised. The front part of the base of the mastoid was widely gouged away, and three

small pieces of bone removed, which were embedded beneath the mastoid antrum. The mastoid process was so densely sclerosed that it had to be cut out with the surrounding bone. The cavity of the antrum was opened, with a drop of muco-pus in it, syringed out, and made to communicate freely with the opening cut in the bone and with the external auditory meatus, which was almost impervious before. The wound was stitched top and bottom, a drainage tube placed in the antrum, and a dressing of iodoform and salicylic wool applied. The symptoms were relieved after the operation, the temperature never rose above 100°, and the patient made a rapid recovery. The wound in the antrum was kept open until the drainage tube was forced out by the growth of new bone. The facial paralysis was much lessened, and, beyond a slight discharge from the ear, the patient got well and resumed his occupation.

It was not thought probable at the time of the injury that the patient could have discharged two bullets into his ear,and no search was made for the second one. It is remarkable that during four years of suppuration the cranial cavity was not invaded. The patient was in great danger all the time, and the opening in the drum membrane was his "safety-valve."

Several cases have been reported in which the entire petrous portion of the temporal bone came away by caries and necrosis. I have seen two such cases.

The Prevention of Conception.

We like to meet men who have strong convictions and the courage to support them. Dr. Blackwood, of Philadelphia (*Med. and Surg. Reporter*), addresses some strong arguments in favor of the practice of prevention of conception, which he terms a necessity. But there is one insuperable objection to the medical profession endorsing such a procedure. If the fear of detection, through the development of pregnancy, were removed from the minds of men and women, virtue would have but a poor chance indeed. Dr. Blackwood says that for one husband, who out of regard for the feeling and welfare of his wife abstains from sexual intercourse when it is desirable or absolutely necessary to do so, a million will insist on their "rights," and leave their spouse to endure the consequences.

It cannot be denied that gratification of the sexual desire increases its degree. Most men believe that a man cannot be healthy without having intercourse with women, but "the wish was the father of the thought," and it has been demonstrated that this belief is not founded in fact.

We have no suggestions to offer. It is a question worthy of the most serious consideration. So far no practical solution of it has been given.

The Electric Current in Esophageal Stricture.

A case is reported (*Amer. Prac. News*) by Dr. E. T. Painter, of Pittsburg, in which there was a stricture of the esophagus, about sixteen inches from the lower incisor teeth. Difficulty in swallowing solid food began six years ago. This gradually increased till finally the patient could swallow only liquid food, and this when taken at a certain warm temperature.

Dr. Painter said an examination of the esophagus with a bougie proved the existence of a band, which would resist the further progress of the instrument till the constriction willed to give way, when the bougie would easily slip into the stomach. Neither the diameter of the bougie, the flexibility of a tube, nor force, seemed to have anything to do with passing through the constricting ring. Passage beyond the constriction could be made only when the ring was so disposed and inclined. There had been no pain or hemorrhage. There was no history of the introduction of a foreign body and its impaction, or of the swallowing of a strong acid or strong alkali. No aneurism was evident There was no history of carcinoma. The constriction was 16 inches from the lower incisors.

Dysphagia and regurgitation, which prevented the patient's retaining sufficient nourishing food, were the only symptoms given.

In treating the case I employed from six to ten cells of a galvanic chloride of silver battery, placing a sponge electrode joined to the negative pole in one hand, and an esophageal electrode connected with the positive pole within the constricting ring. This electrode consisted of an ovoid shell, seven-sixteenths of an inch by three-fourths of an inch, of perforated hard rubber, which could be unscrewed in the middle, and had sufficient space within for absorbent cotton which came in contact with a small expanse of platinum, and that in turn was united by an insulated wire to the battery.

The battery used gives a current absolutely constant in character; and a water rheostat served to differentiate the strength of the current. My applications were made three times a weak for a few weeks, then twice a week, each treatment lasting from six to twelve minutes.

At the fourteenth sitting, the electrode passed the constriction without perceptible resistance and without the knowledge of the patient.

At the end of three months, the constricting ring remains, but its irritability has disappeared, and the patient now eats without trouble anything she wishes, except "one item of food, meat, which is cut fine for her."

A Closer Study of the Effects of Well-Established Drugs Needed.

It is probable that the time will never come, when over-zealous investigators on the one hand, and the abuse of the use of remedies on the other, will cease to lead the medical profession into extremes. Here and there a new and valuable remedy is added to our list along with many that are worthless, (or worse, as they induce the physicians to depend upon them instead of upon those of known therapeutic value) while some of our most potent remedies for good are discarded because of the careless use of them.

There is a growing demand for a "weeding out" of our dispensatories. The infinite variety of conditions met with in disease, and the varying effect of remedies upon patients who seem to suffer from the same disease, make this a very difficult task.

Certainly it is desirable that the attention of the profession should be drawn to the necessity for a closer study of the therapeutic uses of well-established agents. It cannot be denied that there are physicians whose list of drugs used in practice, does not exceed twenty, and yet their results compare favorably with others who have scores of drugs upon their list It is a common observation that one physician may succeed where another has utterly failed, though they use exactly the same remedies. Of course the time at which the drugs are given has much to do with their effect, but it is highly probable that a more thorough and extensive knowledge of what may be accomplished with each drug used, furnishes an explanation of the difference in the success of the two physicians.

Dr. A. G. Auld says, in the *Lancet* of Sept. 22, "the powerful diuretic properties of calomel seem to have been overlooked until quite recently, when the investigation of Jendrassik, Stiller, Mendelsohn, and others directed attention to the subject. I have observed this action of the drug in causing a copious discharge of urine and dispelling anasarca; and it does not seem to be impeded by the complication of a certain amount of structural disease of the kidney. In two of the cases medium doses were employed till diuresis set in; in a third, in which the effect of mercury was known, a single dose of twelve grains was administered which was quite as efficacious."

It seems almost incredible that this effect of calomel should have been so long overlooked. Certainly no stronger argument for the necessity for a closer study of old and well-established therapeutic agents than this could be given. The *modus operandi* of most drugs is obscure, but the clinical facts are always open to observation.

The unwarranted production of salivation by the use of mercury, many years ago restricted its use for a time almost exclusively to cases of syphilis, and now that the tide is in its favor, it should not be forgotten that much harm can be done by its careless use.

"It need hardly be mentioned that much discrimination is requisite in the employment of the drug, and trial should first be made of the effect of small doses. It is also useful to remember that mercury is best borne by dark-complexioned persons. In suitable cases, it combines the advantages of a purgative and diuretic, without leaving injurious effects on the heart or kidneys. To whatever extent it may ultimately be found useful, it is pleasing to note meanwhile that attention has been drawn *de novo* to one of the best of those of the old remedies which, like bleeding, have fallen, it is to be feared, into an unmerited neglect, in a too eager desire to adopt the latest novelty or to follow a shifting fashion."

It has been demonstrated beyond question that calomel has a specific action on the liver, causing a copious flow of bile into the alimentary canal, but there still remains the greatest diversity of opinion as to the amount that should be given at each dose, and how often the dose should be repeated.

Jendrassek, who first drew attention to its marked diuretic properties, gave three grains three times a day. The diuresis usually appeared on the second or third day of treatment, and the best results were obtained, in most cases, when some signs of salivation were noticed.

Mr. Talfourd reports an interesting case (*Brit. Med. Jour.*,) in detal in which there was great distension of the abdomen from ascites, and edema of the legs. The patient was given calomel in three grain doses, five being given in 36 hours. Diuresis set in between the second and third day, and continued five days. Two weeks after the commencement of the calomel treatment, the general edema had about disappeared, but the ascites remained about the same. At this time calomel was given as before, diuresis beginning on the third day, and ten days later the ascites had entirely disappeared.

Dr. Burnside Foster, of Minneapolis reports a case (*Northwestern Lancet*) in which a man, aged 18 years, while laughing, drew a tin whistle (one and a half inches long, three-quarters of an inch thick) into the entrance of the right bronchial tube. The foreign body created so little disturbance that the consent of the patient's family could not be obtained till the third day, at which time Dr. Foster placed the patient under chloroform, and making an incision in the trachea well below the isthmus of the thyroid, extracted the whistle with a pair of long forceps (Mackenzies). The patient made a good recovery.

EDITORIAL ECHOES OF THE M. V. M. A. ANNUAL MEETING AT ST. LOUIS SEPTEMBER 25, 26, 27, 1888.

BY I. N. LOVE, M. D.

The St. Louis meeting of 1888, of the M.V. M. A., has come and gone and who will say that it was not the most successful the organization has ever held; and why was it successful and why is this society bound to grow in strength and numbers as the years go by? Because, 1, It has the best organic law governing it of any society in existence to-day; 2, it represents that part of the profession which is growing daily in importance and is most thoroughly impressed with the need of systematic organization. This meeting surpassed in point of numbers the recent Medical Congress at Washington, which was heralded so widely, and certainly equalled it in the character of those in attendance.

From 10 o'clock A. M. to 5 P. M., for three days the scientific work was constant.

* * *

President Dudley S. Reynolds covered himself with glory as a graceful, dignified, prompt, business-like presiding officer. He expedited the work amazingly by never hesitating, by being clear, firm and definite in his decisions right or wrong.

The election of Dr. Geo. J. Cook of Indianapolis, as president for the coming year, was a wise selection. He is one of the most able, earnest and conscientious workers in the profession. While in Louisville, for many years he was Professor of Anatomy in a leading medical school and highly esteemed by his confreres, and since his removal to Indianapolis he has taken a place in the front rank of the leading surgeons in Indiana. One advantage the M.V.M.A. will possess in his being its president is that in a dozen of the Valley States he has a following of loyal working, loving friends in the profession who will rally to his support and see to it that his administration is well sustained.

* * *

In making Dr. Griffith of Kansas City, Vice-president one of Missouri's favorite sons was honored, he being truly a fit representative of the brainiest, brightest and best element of the regime that is new in our grand old Missouri.

* * *

And as to Vice-president Jno. A. Larrabee of Louisville, he is second to none. He is now president of the Pediatric Section of the A.M.A., and a leader worthy of the noblest following. By the way in this connection look out for the most royal session on record of the section on diseases of children, when it meets at Newport. Larrabee is a hummer from away back. What's—— Larrabee? He's — right!

* * *

A goodly number of ex-presidents were in attendance, among whom were Dr. A. M. Owen, the ornate, observant, obliging, obvious, off-hand, open-hearted, obstinate alone in serving his friends, the only Owen of Evansville; Dr. F. W. Beard of Vincennes, Ind., a faithful, sincere, efficient worker in the cause of science and humanity; Dr. Wm. Porter, a persistent, persevering pusher, in all important affairs of the profession, and last but not least the quiet, earnest, erudite, Arch. Dixon, of Henderson, Ky. The *Medical Annals* of the past year attest the ability of the last two as observers and wielders of a brilliant and ready pen.

The papers presented were uniformly good and the number of them was very large, almost too large in fact,there being over fifty. Several very excellent papers were read only by title. A number of the local profession of St. Louis, were so generous and considerate as to relieve the committee of arrangements of embarassment by early offering to stand aside in favor of visiting essayists, notably, Drs. Geo. F. Hulbert, Henry Schwarz, Wm. Porter and A. B. Shaw, all of whom had most excellent papers.

* * *

By oue of those unaccountable, unavoidable accidents that will happen now and then to the best of men in the worry and work of making out the provisional programme for publication, the names and titles of papers of two of the most faithful, earnest, modest,conscientious, true and best members of the association were left out. Whatever either of them may write is right, and can safely be accepted as a valuable contribution to the literature of our profession. It may truly be said that the M.V.M.A. was a loser by this oversight. Dr. A. H. Meisenbach of St. Louis and Dr. F. W. Beard of Indiana, will please accept the apology of their friend who would far sooner have done himself an injustice than either of them.

* * *

This is likely as good a place as will present itself for the chairman of the committee of arrangments to say that for three months his whole head, heart and soul have been taken up with making the 1888 meeting of the M.V.M.A. a triumphant one.

During all that time it has been his desire to do the particular thing which would redound to the success of the meeting and the association. If at any time the rights of anyone have been neglected,it has been unintentional; and the neglectful one holds himself in readiness to be forgiven. In the mean time let us all turn our faces to the front and determine that from now on we will all work to the end that tne medical profession of the West and South be completely organized, strong and united.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

ANNUAL MEETING AT ST. LOUIS, SEPTEMBER 25, 26, 27, 1888.

[CONCLUDED.]

DR. THACKERY, of Chicago, read brief notes of cases of putrid urine (ammoniacal) treated successfully with saccharine. He gave no physiological action on which to rest his discovery—simply the fact, after a thorough trial of the agent. The paper was not discussed.

DR. A. W. SPAIN, of Terre Haute, read a paper on "Consanguineous Marriages." Reserved for publication.

DR. MCKEE.—The belief generally prevails and permeates all classes that consanguineous marriages have a bad effect on the resulting progeny. I had occasion to study this subject some time ago, and I came to the conclusion that here was nothing in it. The same rules regulate such marriages, that regulate common marriages. Many other investigators of late years have arrived at the same conclusion. Of course there have been many evil effects ascribed to it, such as whooping cough, insanity, idiocy, the deaf and dumb state, etc. Three per cent of the deaf and dumb are from consanguineous marriages. Ordinary marriages have the same per cent. There is a greater per cent of deaf and dumb among the aristocracy, and in France there is a certain community where the percentage is very much higher. In large cities it is also greater.

THURSDAY MORNING, SEPT. 27, 1888.

DR. THACKERY, of Chicago, read a paper on "Simplicity and Accuracy in Therapeutics."

The speaker declined to endorse the present custom of multiplying remedial agents, and especially called attention to the bad practice of multiplying the compounds of the standard therapeutic agents. He enumerated 41 compounds of iron, 64 of mercury, and a proportionate number of other bases. He deprecated the Hahneman theory of decimal trituration, but admitted the benefit of trituration to bring out the active principles of medicine.

He held that there was no animal magnetic property in any natural fluid. The effects under these agents were due to manipulations and imaginations.

The gist of the paper was directed to the new system of alkaloid medication and the reader drew attention to the granule triturates now before the profession.

DR. LARRABEE.—I have had the pleasure to listen to the paper and was entertained and improved by it. In our attempts at simplifying therapeutics, it seems to me that we will not reach our object merely by establishing the alkaloidal principle. Much of what we formerly used empyrically, we now bring to the front and use scientifically. In regard to the substitution of the alkaloids for the crude drugs, every one knows that there are many properties of a drug which are lost in giving simply the alkaloid. As for instance in the case of opium, if I treat peritonitis I can get an action from the crude drug which I cannot get from morphine. The same is true of digitalis.

It is desirable that therapeutics should be simplified, and I am obliged to Dr. Thackery for calling our attention to the complexity, and to the many preparations of the same drug. It would be better to know a smaller number of drugs and to know them well. A great many of these things written about the different preparations, are not true. I shall return to the use of our old standard drugs as occasion permits. The old fashioned calomel and jalap is hardly ever prescribed, and yet they are most beneficial. It is rare that we see emetics prescribed now, and at the same time they have very great value. A return to the few old standard remedies will become the profession.

DR. THACKERY.—In reference to the use of crude drugs as being scientific because of the many properties in the drug, I do not agree with the conclusions of the doctor. These

alkaloids are many of them antagonistic. Better results have been obtained from infusion of digitalis because the digitaline is readily soluble in water and hence has ready access and entrance to the system.

Dr. Wm. Conrad, of St. Louis, read a paper on "Practical Points in Dentistry for the General Practitioner."

His paper was a synopsis of the science directed to the uses of the busy practitioner of medicine. He complimented the profession of medicine upon its liberality in extending (through the American Medical Association) to dentists an invitation to become permanent members of the Association.

Speaking of the care of the teeth: Cleanliness should be instilled into the mind of the people. Before bed time the teeth should be brushed in every direction with a soft brush and precipitated chalk. No acids, washes or gritty substances should be used. The teeth should not be removed unless there be good and sufficient cause, as the loss of a single tooth may cause the loss of the whole set.

The extraction of teeth for neuralgia, soft pulp, etc., was bad practice. If the pulp be alive the practitioner could fill the cavity with some wax or varnish of a character not hurtful, and save a good tooth. If the pulp be dead, nothing would serve to relieve the pain and trouble except a release of the pus or gas.

Dr. Williams.—I should like to know if the doctor approves of the use of wooden tooth-picks.

Dr. Culbertson, of Cincinnati.—I heard a a conversation between two doctors not long ago in which they were discussing the implantation of teeth that had been drawn; they related instances in which the teeth had remained longer than two years, and I myself know of one instance that a tooth remained in a healthy condition for longer than two years, but suddenly it then crumbled. I removed a tooth two years ago that had been implanted fifteen years.

The President.—Dr. Robert Twiss, in 1841 practiced implantation of teeth drawn from lambs. An account of this may be found in the *Brit. Med. Jour.*, published in 1842. John Hunter practiced the implantation of teeth in the combs of cocks and they grew and obtained such form as they are supposed to obtain naturally. The point of the essayist is that the revival has taken place on a different basis from that formerly used.

Dr. Conrad.—In answer to the first speaker; wooden toothpicks by all means, where they are properly made. The ordinary common wooden toothpick is not fit to put into the mouth. Dr. Morrison suggested quill toothpicks; that is all right, it is merely a question of taste.

The gentlemen all seem to catch on to the word implantation, but they speak of its recent revival. It has been performed for many years. Replantation is to extract a tooth and replace; transplantation is to extract a tooth from one person's mouth and put into that of another; implantation is to prepare a socket in the jaw and put the tooth there. The oldest record of this procedure is not longer than 26 months. It was first done by Dr. Younger of San Francisco.

We can place no reliance on old records of 100 years ago, because they are inaccurate. Hoodoism, etc., were then recorded as facts. Statistics showed that 7 per cent of these cases of implantation were favorable. If the test of time will prove that it is a permanent operation, there is nothing which will be more beneficial to mankind than this operation. Some claim that John Hunter did implant teeth, but I don't think he did. He was, however, the first to write on the surgery of the teeth.

Dr. R. F, Brooks, of Carthrge, Mo., read a paper on "Clinical Notes of Rheumatic Neuralgia. (Appeared in last issue of Review.

Dr. Fairbrother.—Only one point I wish to speak on and that is in reference to the treatment. It certainly surprises me that in the treatment of these neuralgic rheumatisms as they are termed,—for that matter all rheumatism is really neuralgic—but in the class of diseases referred to by the paper the crowning beauty in therapeutic agents, antipyrin,

was not referred to. In my present practice in such painful affections it is the sheet-anchor of treatment.

Dr. C. S. Bond, of Richmond, Ind.—In nearly all of these cases referred to in the paper there is a history of long continued constitutional disorder, which undermines the general health of the patient. Patients who have tuberculosis give histories of neuralgic pains, which are generally localized. If there are hereditary influences to be found, we have a better basis to work on than if we only know that there is simply a neuralgic difficulty existing.

I wish to mention another fruitful source of myalgic pains. Individuals who have organic troubles of the kidney, have at the same time these myalgic pains which are situated in the lumbar region. It does not follow that because he has lumbar pain, he has difficulty with the kidney; those who have kidney disease give evidence of almost every other one except that affection, but if there is a condition of general prostration then the myalgia can be best cured by giving constitutional treatment.

Dr. W. C. Chapman, of Toledo, Ohio.—My experience has not coincided with that of Dr. Bond. In the majority of cases which I have observed, the pain occurs in those who are of robust health. I have had a great many of these cases, and they are in persons who are perfectly healthy, in families without tubercular history. Now as to myself; I believe I am a healthy specimen of manhood, but I am subject to this lumbago. What is the cause of this trouble when it occurs in a person of robust health? The urine, bowels and all healthy. If you will pay attention to this point, you will observe that this rheumatic neuralgia comes in a certain locality and the patient will be laid up for three or four days. We have to trace it to something other than a rundown condition of the health. I would like to find some remedy that will remove it. As my patients who have this muscular rheumatism recovered, I have not attributed it to any cure wrought by me. There is one condition which I think has not been sufficiently referred to and that is, traumatic influences.

I notice also that the gentlemen who have spoken on this subject are those who come from low altitudes. I too am practicing in a locality where it is only 400 feet above the level of the sea, and there we have a good deal of the diseases spoken of. If you send those patients to a high, dry altitude it will cure them. They don't have it in Mexico and Southern California.

Dr. Senseney, of St. Louis.—I have seen the best results from massage. The case of my father illustrates this. By sitting before the fire with his back turned to it some one practicing massage on the affected region, relief will follow.

Dr. Owen.—I will cite a case; I was called to see a patient who had occasional attacks of lumbago and would then be confined to bed from three to five days getting relief only by hypodermic medication. At this time of which I speak, he had made arrangements to go hunting, but in getting out of bed the attack came on; when I arrived there he said, "I will be thankful to you if you will relieve me any way on earth excepting that of hypoderms." I applied two or three cups, poured alcohol over his back and in some way the alcohol took fire, burning him. He jumped up crying "My God, man, you are burning me up!" The relief was immediate and he has never had another attack since that I know of.

Dr. Smith, of Indiana.—I am interested in this disease. I have suffered, and have tried all remedies. Before the time for hypodermics I resorted to the use of morphine by the stomach, I tried cupping and fly-blistering, liniments, internal remedies, but with no effect. I think I was relieved more, simply by large doses of bicarbonate of lime than from anything else. I have used all kinds of injections, chloform, ether, morphine and atropia, some having relief and some having having proved failures. I have found a great deal of benefit to be derived from taking a hot iron and running it from the hip to the lower part of the leg; but as long as we stay in the cli-

mate in which we already are, we will not get well and stay well. A change of climate will bring about a change in health.

Dr. Frank Glasgow, of St. Louis.—There is one remedy which I believe has not been given, that is, a sweat-bath. If we look into the remedies generally lauded for their effects in this disease we will find that they are nearly all stimulants. Alcohol, massage, faradic current, etc., are all stimulants. These and the anodynes form the two principles of medicinal treatment. I have known many cases and have had the same result in my own case; as where the muscles are so sore that I could hardly move, active exercise in the hot sun would do away with it in a short time. I don't believe those who are run down in health are especially prone to this disease. They are more subject to the true neuralgia. I believe it is from some imperfect metabolism; something that is not removed from the blood, and can be removed by sweating.

Dr. Pittner, of Illinois.—I have been listening to the gentlemen speaking of this as a disease. I have been wondering if we haven't been talking of a variety of pathological conditions, all bordering on this line. Although we must have some name, we have no name for what they are talking about this morning. There are myalgias, which would appear to be more rheumatic in character, and others which may be better termed rheumatic-neuralgia. I believe in the latter case, in plethoric individuals, it is well to inquire into elimination. There is a sort of diathesis—that general morbid condition or habit—which should be carefully studied and met with proper treatment—regulation of diet, proper clothing, etc. It is too much to say that we cannot do much, if we stay in this climate. If the persons are comparatively well to begin with, we can do something for them. In spare individuals, there is generally a fault of nutrition as well as of elimination, which should be carefully considered and proper tonics and nutrients are the best measures. The cases are to be studied individually, and we cannot speak of them as one disease.

Dr. Jos. Grindon.—I want to suggest that in these cases of rheumatic myalgia, the gentlemen try the local application of suphichthyolate of ammonium in aqueous solution, as an adjuvant to the necessary internal treatment.

Dr. Larrabee.—I rise to show how nearly we agree when it appears that we disagree. The discussion has taken the character of an experience meeting. The existence of plethora or the opposite condition is not corroborative of the condition described by Dr. Brooks. The explanation made by the gentleman who burned his patient, is a good one and the other is a good one, both indicate that there is want of oxidation of the products in the system. If I sit with my side in a draft I get a crick in the neck. It is simply an arrest at that point, of the chemical combination of lactic acid and soda. Bring up the circulation of that part by heat, external applications, or by dilating the capillaries and you bring the salt there for the union with lactic acid, and you work the cure. It has been some years since Anstie described the condition in neuralgia to be a cry of the nerves for better nutrition.

Dr. Geo. N. Lowe, of Indiana —I am also one of the sufferers from lumbago aud I have found that the best thing I can do is to obtain quietude and use warm applications.

Dr. Brooks.—I have nothing to add to my paper. I did not speak of sick headaches; there are ever so many women who have "neuralgia" in the head when it is really myalgia; antipyrine or antifebrine and the treatment for myalgia will cure them. We ought to pay attention to the stomach and nutrition. I like Dr. Larrabee's explanation very well, but there is one thing I don't understand; why is it that when a stout fellow who has not been sitting in a draft, but has been working in the field, gets a pain between the shoulders? When there is too much lactic acid in the blood, if there is a twist of a muscle, the disease settles there; that is my explanation of it.

Dr. Joseph Grindon read a paper on the "Recent Epidemic of Small Pox at Moberly, Mo."

The doctor thought a paper of this character not inopportune at the present time, inasmuch as the secretary of the Missouri State Board of Health had given it as his opinion that we might expect small-pox during the coming winter.

The Moberly epidemic is supposed to have originated in the family of an emigrant who came to the town last March direct from Switzerland. From the case of this man's daughter there sprang nine more—from these others until there had been six "generations" or degrees of transmission, including 48 individuals and 3 deaths. A chart was exhibited showing the progress of the contagion and exemplifying two points, 1st the effect of isolation and quarantine as in one instance where it was shown that timely removal of one case would have prevented the occurrence of seventeen more. And 2nd the duration of the period of incubation.

This was 10 days	in	1 case.
12	"	4 cases.
13	"	7 "
14	"	5 "
15	"	3 "
17	"	1 case.

The general type of the epidemic was mild, the mortality being 6¼%, 8.2% of the whites and 11.6% of the colored patients.

Of 38 patients coming under Dr. G.'s own observations 31 had never been vaccinated and the only deaths (2) among his own patients were in this class.

Treatment.—Pilocarpine hydrochlorate hypodermically, gr. $^1/_5$, to the adult has a beneficial action in changing the type of the eruption, no more than 1 dose should be given any patient, and that at the termination of the third day of eruption. Experience show that if one does not produce all that is looked for, it will be useless to give another: regard must be had to the depressing action of the drug.

Antipyrine had given the best results in the secondary fever. A chart was shown giving its actions as seen in the temperature and pulse tracings.

Dr. Rose Bryan, of Chicago, read a paper "On the Psychical Treatment of Insanity."

It was the belief of Dr. Bryan that the present system of management in insane asylums was upon a wrong theory. She would minister to a mind diseased not by solitary or any other kind of confinement, but by efforts in the direction of stimulation of the lagging function, or by logical and tentative suppression of an already overstimulated part of the nervous system. There were few if any insane persons who were not capable of reasoning to a certain degree, and tact and study on the part of the attendant was greatly needed to enable him to successfully handle such cases. Confinement or any forcible resistance to inclination of the patient would only the more highly develop the disease, and remove farther the possibility of cure. Of course she was willing to admit that there were cases of insanity that required treatment by confinement, but they were rare, and it was her belief that there should be private institutions which should be "half way houses" for the treatment of cases of questioned sanity.

Dr. Larrabee.—I wish to make a motion, and I make it not because Dr. Bryan is of the opposite sex, but on account of the intrinsic value of the paper. The motion is that the thanks of the association be given to the reader of the paper.

Dr. Chapman, of Toledo.—I desire personally to thank the lady for this paper. I come from the city of Toledo, in which has been located an asylum for the treatment of the insane. This establishment has been based on a new theory, the theory exactly as presented in this paper. It is built, not as a large building, with magnificient halls and wards and dormitories, but it is made up of cottages. There are 1,000 insane there now. No building has more than 20 inmates; wo attendants take charge of each twenty. They are not locked up. Insane have been brought there who were said to be incurably insane, have been restrained, watched and guarded, but I have seen these walk out to their meals, eat their meals together as you and I would do. There is no need for restraint there.

There is nothing done but this psychical treatment. Of course they have strong wards, but no one knows that he is in a strong ward. One attendant goes with each 20 when they walk out each morning. They are treated to all the forms of amusement that we have. I saw 500 men and women dancing, who were said to be totally insane, with as much pleasure as you or I would do; each insane person must dance however with an attendant. The cottages are built with the idea that the insane are to be treated as human beings,not to be locked up in a corner and allowed to sit there. The superintendent says he has sent home many persons who had been called incurable. I asked one of the patients how he liked Toledo, and he said "Why this is a home, this is no asylum!" I cannot help but believe every word in the paper is true. We are coming to that belief, these large prison walls of the asylum will be knocked down and we will find homes there instead.

Dr. F. R. Fry, of St. Louis.—I want to say a word or two commendatory of the paper. We are all aware that this sentiment is spreading as rapidly as the development of the country will permit. It soon will be universally acknowledged and established. There have in the last year or two appeared several contributions to this subject and they have had very considerable effect on the minds of the profession, but I consider none of them of more value than the contribution we have heard this morning.

Dr. Earley.—Some ten years ago I was appointed on the committee to investigate the assylums of Chicago, and I then recommended the home system.

Dr. Grindon.—Some months residence in a city institution has prepared me to appreciate what Dr. Bryan has said. Regarding the character of the attendants in an asylum the system usually in vogue is altogether wrong. An attendant is praised by a superintendent generally less for her fitness for the work and interest in the patient, than for the neatness and cleanliness of her ward. She is a domestic, in other words. Now in this matter, as in many others, the profession, although behind the point at which it should have arrived, is ahead of the legislators, who will not give the money for the supply of proper conveniences and capable attendants.

Dr. A. B. Shaw, of St. Louis.—I am in accord with what has been said in the paper by Dr. Bryan, but I wish to inject one dash and call a halt. There has been a movement toward greater and greater liberty of the insane patients. We have arrived at a time in the history of these steps when we are about to lose sight of the fact that there is a mechanical substratum as a basis for these disorders of brain activity, and there is danger in going too far in this direction. Insanity has been spoken of as a disease of the mind; this is a misnomer; what we term mental affections, are but abnormal manifestations of brain activity for which we have the physical basis in the brain itself. This physical treatment of insanity is good but it must not be carried to excess, and let us not lose sight of the fact that while we influence our patients by emotional means there are many cases where we must use some restraint, medicine, etc., and control by physical means when it becomes necessary. I heartily endorse the paper that has been presented to you. It is a step in advance but let us not become too enthusiastic in that direction. We have a physical basis to deal within every case of insanity; there is disorder of the brain; usually a hyperemic state.

Dr. Bryan.—The legislators may be answered in their pleas for economy, by the fact that it would be real economy to provide for better attendants and conveniences and have the patients discharged soon after their entrance, instead of becoming a perpetual burden on the state. I have only to thank you for your kind attention.

Dr. Frank R. Fry read a paper on Alcoholic Neuritis, it being a clinical study of six interesting cases in all of which there were more or less of unusual symptoms, such as might obscure a diagnosis without careful study of the individual cases.

His recapitulation was as follows:

1. Alcohol is probably a common factor with other agencies in the production of some cases of neuritis.

2. The sphincters are probably occasionally involved.

3. The deep reflexes are sometimes exaggerated.

4. In diagnosis, not infrequently, little aid is to be had from sensory symptoms, and too much reliance must not be placed on tests of sensibility.

5. In the presence of complication or of distracting symptoms, especially cerebral symptoms, the existence of extensive peripheral neuritis may be overlooked, and especially if it affect one or more of the cranial nerves, as for example, the pneumogastric.

6. The outset may be very acute, the disease developing within a few hours with pyrexia, etc., or very slow not reaching its acme for two years.

7. A trial of ergot in dram and half dram doses is recommended in the treatment of multiple neuritis.

Dr. Arch. Dixon, of Henderson, Ky., read a paper on "The Value of Hydrogen Gas in the Detection of Intestinal Obstruction" of which the following is an abstract.

John Carroll, saloon-keeper, æt. 46, three years ago applied for and was granted a pension upon the following grounds: Left inguinal hernia, oblique; varicose veins of both legs, and heart disease. The hernia was said to have been caused by a strain received during the war, the heart having been weakened at the same time, the varicose veins appearing later. Examination revealed a left oblique inguinal hernia, easily reducible, heart sounds normal, though lacking in force, both legs disfigured by varicose veins but no ulceration. He applied for and received a truss, but only wore it for about a week, as it gave him some discomfort. On May 14, 1888, he rode a distance of thirty miles, in an open buggy and over a rough road. The night of the 14th, he was attacked with colicky pains, which were partially relieved by a hypodermic of morphia and atropia. May 15, he made the journey back. The pains had continued with slight intermission and growing gradually more severe. and accompanied by vomiting, notwithstanding a liberal supply of morphine. On the morning of the 16th, I was called to see the patient and found him with a weak pulse, a disposition to vomit frequently, and obstinate constipation. An examination of the hernial orifices was immediately made, and the hernia spoken of found to be strangulated, the bubonocele formed by it being tender and swollen; all attempts at reduction proved futile. Taxis was made, under chloroform, without avail, and the patient was informed that an operation was necessary for his relief. This was readily consented to by the patient, but strongly objected to by his wife, consent being withheld for the time being. On the morning of the 17th, the patient's condition was much worse, he having passed the night in pain and almost incessant vomiting, his wife having administered to him, against my advice, three compound cathartic pills, in order to relieve the constipation, this being followed by several large enemas of soapsuds. This treatment but added to the gravity of the case and urged by myself and three other physicians,a reluctant consent was given to operation. The pubes and abdomen were shaved and antiseptics freely used. Assisted by Dr. John Young Brown, the usual operation was made for the relief of strangulated hernia; the sac was opened and a knuckle of gut was found in the canal, deeply congested, surrounded by a large mass of adhering omentum. The point of strangulation was at the neck of the sac, which was incised freely. In attempting reposition of the gut it was found adherent to the sac. The adhesions were carefully separated, except at one point, where it was deemed best to excise the portion of the sac attached to the gut and return them together. The omentum was liberated, drawn forward and, after deligations with strong catgut, was cut off and the stump returned to the abdominal cavity. The sac was closed with catgut and Czerny's inguinal suture was used in closing the ring; a drainage

tube was placed and the external opening closed by silk, the whole being covered with an antiseptic dressing. The patient came from under the anesthetic well, but vomiting still persisted and he complained of great thirst; temperature, 99°, pulse 105. Tepid water was given by enema, which greatly relieved thirst. Iced lime water and champagne, in addition to hypodermic of one third of a grain morphia, and one one-hundredth of a grain of atropia, were given, but without any permanent relief. Constipation remained obstinate and there was no passage of gas from the bowel. Patient passed a restless night, and his condition on the morning of the 18th presented every indication of intestinal obstruction. There were symptoms of collapse, but not marked; pain was severe, though intermittent, and was sharply defined over the umbilical region; vomiting was persistent, the vomited matter for the first time being feculent, and there was marked diminution in the quantity of urine passed; temperature, 90°, pulse 110. Evidently the operation for the relief of the strangulated gut had failed of its object; there was either paralysis of the released loop, or obstruction within the abdominal cavity existed.

The question to be decided was, whether the symptoms of obstruction, which persisted after the release of the strangulated gut, were due to paralysis of the loop, or was there still an obstruction which had not been relieved by the operation? Drs. S. C. Smith, P. H. Griffin and John Young Brown were called in consultation and, after due consideration, it was decided to make an exploratory laparotomy, and should there be further obstruction, from whatever cause, to relieve it if possible. Before, however, proceeding to this extreme measure, I suggested to Dr. Brown, to whom I had been relating the experiments of Dr. Senn, the rectal insufflation of hydrogen gas, and thought that by the use of the gas a positive conclusion might be arrived at as to whether strangulation still existed, or whether the symptoms were due to paralysis of the loop of gut which had had been strangulated in the hernia, and which had been released. He readily saw the importance of the suggestion.

The gas was at once prepared and passed into a rubber bag of two gallons capacity with stopcock. A small piece of rubber tubing was passed over the nozzle of the gas bag and into the other end an ordinary hard rubber rectal tube was forced. The tube was inserted into the rectum and assisted by Dr. Brown, the insufflation was begun, the gas being forced out by very gentle pressure. In what seemed a remarkably short time the peculiar gurgling sound, caused by the gas passing the ileo-cecal valve, could be distinctly heard, but only a small quantity was passed through the valve when further ingress of the gas was stopped, the patient at the same time complaining of great pain. The lower part of the abdomen, which was slightly tympanitic, became tense and hard with exaggerated tympanites. As much pressure as was thought to be consistent with safety was used, but the gas could not be forced higher up. There could no longer be any doubt that an obstruction of some portion of the gut beyond the cecal valve, most probably of the ileum existed.

The condition of the patient was explained to him, and the advisability of immediate operation laid before him. The statement was made to him that without operative relief death was inevitable, that with it there was a possible chance for recovery. Mr. C. expressed not only a willingness but was anxious that the operation be done.

The entire abdomen was shaved, scrubbed and disinfected thoroughly, and the body and extremities were protected from exposure by warm flannels. The incision was made from the umbilicus to the pubes. There can be no question as to the advantage of an incision sufficiently large, not only to insert the hand of the surgeon, but also to inspect the contents of the abdominal cavity. Immediately upon opening the peritoneum, a coil of distended small intestine protruded and was received upon and covered with towels, wrung out in hot bi-chloride solution, by Dr. Brown.

Search was at once made for the obstruction, by passing my hand into the abdominal cavity and, following the directions laid down by Treves, the cecal region was looked after first. This part of the intestine was only moderately distended (the distention, I took it, being largely due to the hydrogen gas, much of which had, however, escaped from the bowel, per anum). Passing the hand across to the region of the sigmoid flexure, several large glands, mesenteric, could be felt; the colon was closely attached by adhesions to the abdominal wall. Just within the fold of the sigmoid flexure a large gland could be felt and the gut at this point was firmly fixed; its lumen was considerably narrowed by the pressure of the gland. The superincumbent coils of intestine were gently pushed aside and the part brought into view, exposing a loop of ileum much congested, about the size of a duck egg, which had slipped under, and was strangulated by, a band which extended from the site of the gland in the fold of the sigmoid flexure to the edge of the inguinal ring. The gland was caseous and evidently tubercular; in fact, the entire mesentery was studded with tubercular glands from the size of a millet seed to that of a walnut. This band was ligated at both ends of its attachment and divided. The sides of the loop of ileum, which was slightly twisted, were agglutinated so closely that it required very careful manipulation to separate them; the adhesion, however, was recent. A further and careful search was made for other points of obstruction, but none were found. The knuckle of gut which had been strangulated within the inguinal canal, was no longer congested, and looked to be normal. The toilet of the peritoneum was made with great care; the protruding intestine was returned without difficulty. The wound was closed and dressed after Gerster's method.

As before, the patient came from under the anesthetic well and, after the administration, hypodermically, of morphia one third grain and Atropia one one hundred and fiftieth of a grain, slept for three hours. Shortly after waking, vomiting again occurred and continued with slight intermissions, notwithstanding the most strenuous efforts to overcome it. Pain was not again complained of; the distention gradually diminished, there being frequent passages of gas from the lower bowel, accompanied 36 hours after operation by fecal discharge; the pulse grew weaker, temperature never having reached above 100° F. and on the day death took place was sub-normal, 96.5°. The patient died fifty-two hours after the last operation, seemingly from exhaustion.

There cannot, I think, be any question of the correctness of the diagnosis of strangulated hernia. The constriction at the neck of the sac, and the intense congestion of the inclosed gut proved beyond a doubt the existence of strangulation. The coincidence of internal strangulation of a loop of intestine by a band, accompanying a hernial strangulation, is certainly a rare and unusual occurrence, and this point was freely discussed. My own conclusion was, that a local peritonitis had existed in the vicinity of the mesenteric gland and, from this, a band had developed and had become adherent at the points mentioned. "The little local peritonitis excited in the serous membrane covering the glands, may lead to the adhesion of a free diverticulum, or may encourage the development of bands which may, in turn, prove a cause of intestinal strangulation." (3) Under this band, a loop of intestine had slipped, either prior to, or during the straugulation of the hernia, the probabilities are that it was already beneath the band before strangulation took place in the hernia. The distention of the gut, consequent upon this strangulation, doubtless extended to the loop beneath the band, which became, in turn, distended. Inordinate activity of the peristaltic movements was produced by the congestion which necessarily followed the constriction and which was intensified by the administration of the cathartic and, it is probable that these violent movements materially aided in producing the strangulation.

The experiments made by M. Anger, and quoted by Treve show conclusively how this may be brought about.

It may be that the final cause of the strangulation, was the twisting of the involved loop, which was probably brought about partly, by the distention and partly by its own movements, assisted by the dragging of the mesentery.

The question of enlarging the hernial opening or, of making a median incision, was discussed and was decided in favor of the latter and, I think, rightly. "In answer to this question it may be said that, in all cases it is better for the incision to be made in the middle line, and this applies as well to exploratory as to curative procedures. The incision made in the linea alba is a simple one; no important structures are cut through; no vessels of any magnitude are divided; the abdominal cavity is easily reached; the wound is not a deep one and, after the operation, its edges can be easily approximated. If the incision be made over the supposed seat of obstruction, it is probable that the abdominal muscles will have to be cut through; important planes of connective tissue will thus have to be opened up; vessels that may cause troublesome bleeding are apt to be divided; by the time the abdomen is opened, the wound will be a deep one and will have to be relatively larger than the median wound, in order to obtain an equally extensive display of the interior of the belly. Moreover, wounds through muscular layers are not so easy to adjust, and in the case of the abdomen are more likely to lead to hernia than is a median wound through a dense fibrous structure. * * * Even in cases where the obstruction is supposed to depend upon some morbid condition in the loop of gut reduced from an external hernia, it is better, as a rule, to make the cut in the middle line than over the seat of the hernia. A cut into the abdomen through the region of the inguinal canal, is apt to seriously weaken a part already weak and render very probable a subsequent ventral hernia. It moreover greatly limits the surgeon's sphere of action, and may render the operation useless, should an error have been made in the diagnosis. Thus in cases supposed to depend upon an external hernia, an incision has been made over the sac; nothing has been found of note; the wound has been closed, and a second cut made in the linea alba. Through a median incision made between umbilicus and the pubis all parts of the abdomen can be reached, and all parts of the intestine explored. If the obstruction is not in the situation in which it was expected to be found, it may be searched for elsewhere." (5) For these reasons and others, I decided to make the median incision. No attempt was made to prevent the protrusion of the intestines when the abdomen was opened, for by it, more space was gained for discovering and treating the cause of the obstruction, and because I did not believe that the case would be prejudiced by the extrusion of bowel if properly protected in the manner described. "The plan of permitting bowels to protrude has been very generally and very heartily condemned. The condemnation, however, has been in the spirit of the peritoneal surgery of the last generation, rather than of the present. In the face of the actual practical work now successfully carried out, it is idle to argue that extrusion of the bowel properly managed is a source of serious danger. Less damage is likely to be inflicted on bowels by a soft sponge or sponge cloths lightly resting on them, than by a rough hand pushing them about, under great pressure inside the abdomen."

The rectal insufflation of hydrogen gas, in cases of suspected intestinal obstruction, I regard as a diagnostic procedure of great value. If the gut is clear, there will be no difficulty in forcing the gas through the entire large and small bowel into the stomach, where its presence is soon made known by eructations, and to make assurance doubly sure, a tube can be passed through the esophagus into the stomach. If there be gas present, it will at once escape and, by touching a lighted match to the end of tube, it will ignite. Nothing short of complete strangulation will prevent the passage of the gas. Thus, in cases of fecal impaction, the symptoms of which so often resemble obstructions of graver charac-

ter, the gas could be forced by and around the impaction, affording unmistakable evidence that strangulation did not exist. If the gas could not be made to traverse the entire intestinal tract, distention of the abdomen, with exaggerated tympanites, over a given space would, as undoubtedly, show that obstruction did exist.

Dr. Owen.—Dr. Dixon was satisfied that he had overcome the obstruction. Now what caused the death in that case? I would like to inquire if he had examined the urine to see what was the cause of his persistent vomiting. Did he have uremia?

Dr. Fairbrother.—Dr. Dixon spoke of the hernia as being strangulated, the hernia having lasted five days. That is wrong for strangulation. Strangulation can not exist without end. May it not have been incarcerated only? I didn't understand whether it was a loop of the colon or of the small intestine. It is barely possible that in reducing this knuckle of the internal ring still held it and thus prevented transit of gas.

Another point referred to in the paper by the assertion that no change takes place except at the site of obstruction. That is different from my experience which shows that generally the changes go on below the knuckle as well. I remember a case on which an operation was performed, and some days later the portion below the knuckle became so reduced in size as to prevent the passage of the intestinal contents.

Dr. Kreider.—I have had two cases which might come under this head. In 1885 I was called to see a man who had had strangulation for one week, there was no tumor in the inguinal region, no signs of strangulation, no soreness. The only thing that made me suspect the condition was the fact that he had worn a truss for some years, and he had obscure pains. Against the will of the consulting surgeon, I made an exploratory incision; the gut was lying along the inguinal canal,but perfectly collapsed, and there was not a quarter of a drachm of fluid there. The gut was not gangrenous, though it was greatly congested. By freely opening the ring we restored the circulation and reduced it. From the shock of the intestine caught in that position his condition was such that he died within 14 hours after the operation. I made an autopsy on the case and discovered that all the intestine was in good condition. There was really no cause for the death, except the immense shock. Another case occurred recently in my practice; the man having much the same history and showing no appearance of strangulation in the inguinal canal, examination revealing about the same condition that we found in the case previously reported. I made an incision in the inguinal canal and found no gut in the canal. The case was one of which Gerster speaks. A protrusion of the gut between the abdominal wall and the peritoneum. His case operated on recovered; in mine I was not so fortunate in discovering the condition and he died.

Dr. Dixon.—The quantity of urine in this case was at first diminished and afterward of normal amount. I was sorry that no autopsy was permitted. The patient took the pains on the 14th, I saw him on the 16th and made the operation on the 17th. Doubtless the gut was incarcerated at first, but afterward became strangulated. The loop of ileum was strangulated in the inguinal canal. In the case spoken of by the other doctor there was probably paralysis of the gut which had been enclosed in the canal. That will leave the case in the same condition afterward that he is in before the operation, as Greig Smith rightly says.

Dr. J. K. Bauduy read a paper on "Alcoholism," in which he epitomized the records in 1400 cases treated by him in St. Vincent's Asylum.

The cases were taken miscellaneously without regard to special features, stages or degrees of severity. Out of this great number of cases only 14 had died, and all of those prior to 1880, since when 600 cases had been treated without a single death. The doctor was warm in tha support of the methods of treatment advocated by Anstey.That writer advised an expectant plan and unhesitatingly deprecated the custom of narcotizing patients

as a means of treatment. Dr. Bauduy insisted that the disease alcoholism was self limiting and tended ordinarily toward recovery, each succeeding attack, of course, giving less promise of recovery. The effect of opiates was to deprive the system of the nerve force necessary to combat the disease. He did not object to the administration of moderate doses of chloral, bromide of potassium, and hyocyamus, but if patients did not sleep after very moderate doses of these he was not uneasy and did not believe in pushing them further. Insomnia was simply one of the symptoms of a disordered nervous condition, and its subjection was proof that the disease itself had been overcome. He would faithfully nourish the patient, and where the effects of alcohol were due to long continued use of it, he would stimulate. It was not only badpractice to withhold stimulants where there was great depression, it was positively cruel. For medication he had met the best success with the use of paraldehyde, sulphonal, iron and the other tonics.

In conclusion, Dr. Bauduy summarized in substance as follows:

1. Acute alcoholism is a self limiting affection.

2. Acute alcoholism results not from sudden withdrawal, but from excess and abuse of alcoholic—"so-called" stimulants—better called sedatives and marcotics in the doses in which they are taken.

3. The expectant plan of treatment is the most rational.

4. Opiates are dangerous because they additionally derange digestion, and acting as powerful cardiac sedatives, tend to paralyze the heart, and finally because they check elimination, interfere with the normal secretions aud digestions.

5. Sleep is never to be produced at risk or hazard to the patient, but is to be expected as one of the harbingers of a convalesence not to be forced.

6. In acute alcoholism, as in many other acute diseases, the vis medicatrix naturæ is fully adequate in most cases to produce the happiest results.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Sept, 15, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. Brokaw, Jr.—I have here a patient from whom, one month ago I removed a malignant tumor of the antrum which necessitated the removal of the greater portion of the upper jaw. The patient is 59 years of age and had noticed this growth since last January. He thought that during the last month or two the tumor had grown very rapidly, much more rapidly than previously. The tumor evidently sprang from the palate and the growth extended till it involved the entire antrum and externally part of the muscles of the cheek immediately below the angle of the nose, extending backward under the zygoma.

Although I thought it rather a formidable operation under the circumstances, considering the age of the patient, and that he was not in a very good state of health, still as he was very anxious to have the growth removed, I consented to remove it.

The removal was affected by Ferguson's method; that is the incision used was Ferguson's, It extended below the orbital process, running along parallel with the orbit, down along the side of the nose, around under the entrance of the nose and under the lip. I modified this operation somewhat. I first reflected this flap over the cheek and denuded the periosteum from the bone and the muscular attachments and structures, and left the mucous membrane on the inner side of the mouth attached to the gum to prevent the blood running into the mouth. I wanted to leave that to the last.

The text-books and authorities and in fact those who have performed the operation suggest the adoption of one of these methods;the use of the hammer and chisel in severing the bony connections; or the use of the saw, or the use of the heavy bone plyers.

I have used bone plyers very considerably in an operative course given at the college, and in a case like this I don't think they answer the purpose as well as an instrument

which I picked up in a hardware store. In the ordinary bone plyers the blades meet and they do not cut as rapidly as the instrument which I show to you, which is used for trimming shrubbery. This instrument has been used by surgeons for some little time, especially in resections of the rib. I think Esmarck first used it in that way.

After separating the integument and reflecting the flap back, I turned the periosteum of the orbit back, and as a first step cut through the bone. During this time I was operating with the patient in the horizontal position and when I introduced the plyers, after raising the flap from the opposite side of the face and separating the attachments to the bone, I introduced the pair of plyers into the opposite nostril.

The growth occupied the right superior maxilla especially, but extended some distance over the median line. I pulled a canine tooth on that side and introduced the instrument and had very little difficulty in cutting through the bone in that way; then I severed the other attachments to the nasal process and malar bone, and seizing it with Liston's forceps—the lion-jawed forceps, twisted it out and cut the muscles posteriorly with the scissors.

I used Rose's method of inclining the patient's head over the edge of the table,using a tilting operating table, and only kept him in that position a short time, with the head lower than the body for the reason that I have seen this method used quite frequently in in the clinic, and think there are several very grave objections to its use. In cases where I have seen it used the venous hemorrhage has been something appalling; in fact I have seen one patient die on the table which I believe was the result of keeping him too long in that position. I only kept him in that position a few moments.

In the first part of the operation the anes thesia was complete; in the second part it was only partial; in fact he was sensible to some extent, and I did this purposely to keep the blood out of the air passages. I used Von Bergman's method of aftertreatment, the dry tamponated, ten per cent. iodoform gauze being used and the dreesing being changed every three or four days. The hemorrhage was quite considerable, but it was controlled by direct compresses of lint, and the patient was up and about in the hospital a week after the operation.

It is now four weeks since the operation was performed. I believe I have removed the growth entirely, because after the removal of this mass I thoroughly curetted all the parts and removed every bit of tissue that I thought was infected. I am indebted to Dr. Dixon and gentlemen of the class for assistance. The growth was examined by Dr. Rohlfing and pronounced to be a carcinoma. I can not find any enlargement of the glands although I have searched very carefully. I will state that I removed most of the roof of the mouth and almost the entire palate. I succeeded in leaving the alveolar process with five teeth on the left side.

Dr. A. H. Meisenbach.—Dr. Brokaw is certainly to be congratulated on the result in this case, the line of incision having healed very nicely, and the result is very good. Time will show whether or not he has succeeded in removing all the nuclei of the disease. I wish to refer to a case of necrosis of the superior maxillary bone which I think is a little unique as to its cause. Two years ago, a boy about 8 years old, was taken with typhoid fever; he lingered over the usual time—that is longer than the typical 21 or 28 days. I saw him about the sixth week of his illness, and then there was an intense hydremic condition of the whole system, and with it a necrosed condition of the superior maxillary bone. I am aware that necrosis of various portions of the organism is likely to occur after typhoid fever.

The condition of the patient at the time was so bad that an operation at that time could not be thought of and the prognosis was bad. Nevertheless, after the liberal exhibition of ferruginous and bitter tonics, the patient's condition improved, the hydremic condition of the system gradually got better; the swelling of the feet and extremities

gradually lessened and his appetite increased, so that after perhaps three weeks of treatment he was in condition to remove the necrosed bone.

Not knowing the extent of bone that was involved, I made preparation to make a typical resection. The alveolar process with the left half of the upper jaw bone could be felt to be necrosed and it was movable, but how far this necrosed condition extended up towards the malar bone, or involved portions of the antrum and other surrounding tissues could not be determined from an external examination, so I made every preparation to perform a typical resection of the upper jaw.

The ulcerative process had invaded the antrum; a very fetid discharge escaped into the mouth and nose, and the ulerative process had also perforated the soft parts at about the angle of the nose, through which a portion of the bone could be seen. But very luckily for the patient (and for myself also, because it saved me a great deal of work) I found I could excise this portion of the necrosed bone through the mouth without making any incision into the soft parts, or making any inroads on them whatever. I got out the greater portion of the palatine portion of the upper jaw, as well as the greater portion of the alveolar process on the left side of the upper jaw and a portion of the nasal bone, destroying the antrum completely on that side, and for a long time there was a communication between the nose and the mouth, but granulations very kindly closed it up.

I saw the patient on the street the other day and the result was very fine. The retraction which had been produced by the perforation of the soft palate was overcome and the angle of the mouth which was drawn up had come down considerably, so that no one who is unacquainted with the condition would imagine that such an extreme condition existed.

These operations on the head and neck, especially about the upper jaw, are always very bloody and the surgeon must be ready to guard against a great deal of hemorrhage, especially venous hemorrhage. The method of Rose, to which the doctor refers and which he modified in his case, is a method which seems to offer a great many advantages, because it allows the trachea to be kept clear from blood. In operations about the mouth and neck the trachea is very apt to be plugged up with blood thus causing a great deal of trouble.

Dr. Young H. Bond.—We would like Dr. Brokaw to tell us something of the history of these operations.

Dr. Brokaw, Jr.—In twenty-five per cent of cases of excision of the upper jaw, the patients have died, and quite a large percentage of these have died on the table. As regards recurrence, a complete removal is more favorable than a partial excision. Of 609 cases, there were 112 deaths within the period of one year. The partial excision of the superior maxillary bone, while it is a bloody operation, is necessarily a very dangerous operation because our methods of controlling the hemorrhage are not very efficient. The operafion is a very painful one when the anesthesia is not complete, and yet the danger of complete anesthesia is such that it is safer not to keep the patient thoroughly anesthetized, as the blood may otherwise enter the air passages and cause death by suffocation. The operation was performed as early as 1827 and has been done very frequently up to the past few years, when the operation has been performed a great many times in this city as well as elsewhere.

Dr. Ohmann-Dumesnil.—I wish to report a case of syphilitic scar of the entire scalp, of which this is a photograph. The patient was a lady aged 39 years. When I saw her she gave a clear history of syphilis, having acquired the initial lesion from her husband when she was 24 years old. It was not followed by any falling out of her hair, but she had quite severe syphilides. At the time I saw her she had scars all over the body, varying from the size of a 25 cent piece to that of the palm of the hand, some being deep and others superficial and cribriform. I have no doubt they were the remains of a pustulo-

crustaceous syphiloderm. As you will see by looking at the photograph the entire scalp, with the exception of a small border at the occiput and at the right side, which still has some hair on it, is composed of scar tissue and at the vertex, the outer table of the skull has been lost for a space of almost one square inch.

She came to see me because she suffered a great deal from headache, pain in the eyes and an ulcerative process in the urethra. The only medication upon which she was put before I saw her was composed principally of iodide of potassium; and she stated that, although it caused the rapid healing of the ulcerations with which she was affected, as soon as a certain number were well, others would appear. I gave her one-eighth of a grain of bichloride of mercury and twenty grains of iodide of potassium four times daily. She took that for several months without disturbance. She left the city after three months treatment, going to Texas, and from there to Idaho and the treatment was dropped for a short period of time and then resumed again. It is over a year since I heard from her. The last time that she wrote she stated that she was perfectly well.

Dr. Dalton.—I am preparing a paper on some laparotomies which I will read before the Mississippi Valley Medical Society, in which a case will be reported that I thought I would not refer to just now, however, it occurred in a Swede, about 30 years of age. He was taken sick on Sunday and came to the hospital on the following Wednesday. He complained of pain in the abdomen, referred to the right iliac region; he suffered all day Sunday with this pain of a very acute nature, and with diarrhea which was very persistent. He worked two-thirds of the following day, when he had to cease work on account of the intense agony. He remained in about this condition until Wednesday when he was brought to the hospital. We found that there was a distinct induration and dulness upon percussion in the right iliac region, great pain, and upon examination per rectum a distinct bulging was made out in the right iliac region; there was very little fever; the pulse was almost normal, but the pain was very intense; upon the least motion he suffered agony. I operated on him, with the assistance of Dr. Carson and the hospital staff, the next morning at seven o'clock.The pus cavity was attached to the normal cavity by adhesions, and cutting through I readily came upon the pus cavity and evacuated three or four ounces of pus and found the appendix vermiformis adherent and buried in the healthy tissues so much so that it required a great deal of force to tear it from its bed. It was ligated at its junction with the cecum and cut off. I washed out the cavity thoroughly with a 1-1000 per cent solution of bichloride of mercury and put in a drainage tube and the patient made an uninterrupted recovery.

If there is agglutination or adhesion of the walls the operation is not a serious one in this stage; in fact it was very simple.

I think we generally put off these operations until it is too late; we wait too long, until after every effort has been made to move the bowels by enemata and purgatives. If we don't succeed in a few hours,especially if there is induration and a tumor in the right iliac region, we should make a small incision and see what the condition is. We will generally find the trouble, as Dr. Lutz has stated, in the right iliac region. I think it is far safer to cut in boldly then to hug delusive hopes that our patient may in some way get relief. Our patients generally die when we wait; in fact there are very few cases on record in which they have recovered from this condition.

Dr. Wm. Johnston.—What has been the success of the operation when done early.

Dr. Dalton.—I think there have been eight or ten recoveries up to date. Dr. McMurtry of Kentucky has reported five or six successful cases and several others had been reported before that. Dr. Morton of Philadelphia, has reported a case in which he operated successfully. There are eight or ten cases on record in which the operation has been successful.

Dr. Johnston.—What has been your observation Dr. Lutz?

Dr. Lutz.—In answer to Dr. Johnston's question I will say that I am one of those who do not believe much in statistics. I don't care if Dr. Smith of Cincinnati reports one case of appendicitis which he operated on successfully and hunts through the literature for a number more that have been successful. It does not mean anything except so many cases. The way I have been training my mind to look at these things has been this: that those cases of perforative appendicitis for which nothing is done, as a rule, die; and in those cases where operative procedure have been had a general peritonitis sets up or perhaps immediately after a perforation, in those cases you have a right to expect, and the results justify the supposition that your patient is going to get well.

I do not think we are benefited by having placed before us the statistics of how many cases have gotten well, unless we also know how many cases have died. I would look at the case in this way: here is an opening into the cavity of the peritoneum through which foreign matter in the shape of feces or some other substance escapes; this is associated with an acute inflammatory process in the neighborhood where the pus which is formed as the result of the inflammatory process is contaminated by its mere existence in the particular locality. Now I say with these conditions given the only rational thing to do is to remove the posibility of the extension of the peritoneal inflammation. I will say that I have not seen many statistics in the matter, but I will say again that statistics do not form a criterion; they amount to nothing. The only time that statistics amount to anything is when one man gives the result of a number of cases occurring in his own practice; and I would rather follow the deductions and be guided by them of a man who had two cases of perforative appendicitis than of the man who had one case and collected from every possible source statistics of all cases operated upon. When one man collects statistics such as Spencer Wells has done about laparotomy, or Mr. Tait; when one man has a large amount of material it is very well; or when the procedures are governed by the same rules, and the patients are under the same surroundings; under those conditions statistics amount to something.

Dr. Bransford Lewis.—Dr. Lutz in speaking of this condition made reference to it as if there was only one condition present, that of intra-peritoneal perforation of the cecum. Dr. Henry B. Sands, of New York, read a very able paper on the subject, and at the same time reported a case of the condition to which Dr. Lutz makes reference, that is, a perforation of the appendix into the abdominal cavity, creating diffuse peritonitis; he operated immediately and the result was successful; but he also claimed that there was another condition in which the inflammation of the appendix created an inflammation of the adjacent tissues by contiguity and caused an abscess outside of the peritoneum. In this condition the pus goes on to form extra-peritoneally, and he claims the operation should be deferred for the following reasons: The parietal peritoneum comes down the anterior wall of the abdomen and then folds in the inguinal space, going backward into the pelvic portion; now this abscess forms and it creates a bulging of the pelvic peritoneum upward, and burrows its way forward in the direction of least resistance, and after it gets up near the anterior inguinal space the bulging is so great that it meets the anterior parietal peritoneum, and the inflammation accompanying it causes agglutination of these two walls. When this agglutination has taken place, you can with impunity stick a knife in and allow the escape of the pus. He also claims that in most of the cases this abscess forms extra-peritoneally, which claim is not acceded to or supported by a great many surgeons, but Dr. Sands' prominence in surgery makes his statement worthy of attention. He refers to several cases in which the history and post-mortem examination of those who died and the conditions found in those upon whom operations were performed, went to prove that the perforation did not take

place inside the cavity, but that the inflammation of the appendix created the adjacent inflammation and the abscess was formed extra-peritoneally.

Dr. Lutz.—I wish to correct one impression, for Dr. Lewis certainly misapprehended what I said. When I advised operative procedure I did not mean that laparotomy should be performed at once. But on the other hand when you remember that we do not find perhaps two appendices alike in anatomical configuration—you know, Mr. President, that one appendix vermiformis is a long, slender tube, covered entirely with peritoneum, which fits over it as snugly and as nicely as a glove does over the finger, and then reflected over the gut; then you have another appendix, a distinct mesentery. One appendix is short, and another long; one is twisted and naturally adherent to the posterior and lateral wall of the pelvis, and another is adherent to the anterior wall, so that you may almost say with little exaggeration that no two appendices are alike. What I mean to say is this: When you have an inflammation of the appendix vermiformis and a perforation of it, the question whether or not the abscess resulting or the effusion which comes on is extra or intra peritoneal will determine you in the operative procedure. Certainly when the perforation is into the peritoneum, as in the case which I saw this summer, there can be no question about the propriety of performing laparotomy.

Dr. Bond.—How are you going to determine that it is into the peritoneum?

Dr. Lutz.—One minute, Mr. President. When you have a general peritonitis suddenly set up; after your patient has been complaining of pain in the ileo cecal region; when you visit your patient and find that his pulse has suddenly jumped up; his abdomen is tender, with perhaps a tumefaction which has existed, no longer apparent—a tumefaction which was limited and circumscribed, there can not be very much question that perforation has occurred into the peritoneal cavity. When on the other the bulging is in the lumbar region or in the neighborhood of the superior spinous process of the ilium, when the portion above the ilium is bulging and there is fluctuation, no one would think of opening the peritoneal cavity, but we would open it extra peritoneally. I understand that the condition which Dr. Sands described may exist, and I do not wish to be understood as saying that whenever we find this condition of the right iliac region we should perform laparotomy.

Dr. Meisenbach.—I think the older surgeons termed the process which we have been referring to here to-night, an inflammatory process which involved the right iliac region, the cecum, perityphilitis. Now I think there are cases which go to demonstrate and prove what Dr. Lewis has said in regard to the cases reported by Dr. Sands that the vermiform appendix may be agglutinated to the abdominal peritoneum, and that pus instead of passing backward into the peritoneal cavity comes forward passing through the point of least resistance through the abdominal wall. I recollect very distinctly a case in a young man who was attended by a very able physician; where an inflammatory process took place in this region, where an abscess formed and aspiration was performed. (It was before the day of heroic surgery), the patient recovered. I have enough confidence in the judgment of the surgeon in question to know that his diagnosis was approximately as correct as that of any man I know, I would trust his judgment as much as that of any man in regard to the condition which was present, and and that case came to my mind when Dr. Lewis was speaking, and I felt satisfied that that was just such case as Dr. Sands referred to. Of course when we are satisfied that the abscess has opened into the peritoneal cavity, laparotomy is to be performed.

Dr. Dalton reported a case of thrombosis of the brachial artery.

CORRESPONDENCE.

PARIS LETTER.

PARIS, Oct. 1, 1888.

La Therapeutique Nationnalle, September 1888, No. 48, published an interesting case of typhoid fever treated by colombo. A man, V., was attacked by adynamic fever in August, 1885. He was addicted to drink, and was thin and jaded. During the first few days of his illness he suffered from constipation. This was succeeded by a characteristic diarrhea without colic, which was diminished by diascordium, astringents and bismuth. The stomach was bloated, and tympanites confined to the right iliac cavity. The patient only vomited once or twice, and presented only two or three lenticular spots on the right part of the abdomen.

The tongue was red at the edges, and the patient suffered from excessive thirst; it afterward became covered with a grey coating. At times the patient was quite deaf; he slept heavily, and was at times delirious.

On the evening of Sept. 6, he became utterly prostrate; the tongue was fuliginous; the pulse 38.5°; thirst insufferable; coma persisted.

Broth was administered every hour; extract of quinquina. Cupping was applied to the chest and throat; alcoholic friction to the kidneys and legs.

The next day an egg with some crumbs of fried bread were given to the patient. In the evening the vomiting reoccurred. The pulse was 66 to 68 and temperature 38.7°.

On the 9th, three liqueur glasses of Elixir Toni-vadical de Blottiere an colombo were administered.

During the night only one stool. The tongue was still fuliginous, with exfoliation of the median epithilium. For the first time the patient was able to digest some broth.

For two days no stools; the patient digested an egg, soup, broth, wine and water and grilled meat. He slept better, felt stronger.

On the 13th, the patient had a normal stool, after which he passed no evacuations for two days.

He got rapidly better and stronger, and was quite well at the end of September.

The patient had not traveled, nor did he live in a typhoid centre; his fever was not caused by water he drank. The auto-genesis of this adynamic typhoid fever can therefore only be supposed to be over-fatigue and alcoholism.

The Elixir toni-radical de Blottiere an Colombo has a neurasthenic and eupeptic action, which produced the good result on intestinal secretion and the atony of the mucous membrane.

The second observation was of a man of 30 years of age, M.X., who was robust and never out of health. In the house where he lived were two persons suffering from typhoid fever.

At the end of November, he suffered from diarrhea and vertigo. The doctor he consulted advised him to leave Paris.

He was tired after his journey into the country and in the night was delirious. He suffered agonies in his head; the evacuations were pureiform and occurred four or five times a day.

He presented tympanites in the abdomen; but without gurgling in the right iliac cavity; six large red spots were noticed on the stomach. The tongue was swollen, coated in the centre and red at the edges.

Sixty centigrammes of sulphate of quinine were administered daily; 30 grammes of sulphate of soda every third day.

The nourishment consisted of concentrated broth, to which a little Bordeaux was added. In spite of the astringents, the diarrhea persisted, as well as the delirium.

Elixir an Colombo de Blottiere was administered four times a day. In a fortnight the patient grew gradually better, and was quite well on 25th of January.

In this case also, adynamia was the predominant feature, and the Colombo quickened the gastro-intestinal obsorption.

Colombo administered in cases of dysentery, soon causes the stools to lose their typical characteristics; it stimulates the peptogenous power of the stomachal glands, and shortens the convalescence.

Numerous observations have also proved that colombo is an efficacious remedy in the nausea of pregnancy.

It has also effected good results in cases of hepatic affections characterized by chronic ictera.

M. Bovet called attention of the Societe de Therapeutique, to a sample of a new kind of gluten bread. This bread is rich in aibuminoid substances, contains very little matter likely to turn into sugar, and is a good substitute for the dear gluten bread, which often contains 40 or 50 per cent fecula.

It is made of a mixture of pulse (an azotic substance) and a powder called hordeine obtained from barley by Proust.

Buiscuits are also made of this mixture,and keep perfectly well, if a small quantity of saccharine be added.

M. Duhomme believes gluten bread to be most efficacious in treating diabetes; and that if it fail to make sugar disappear from the urine, no other means is of any use. It is not so much the quantity of starch which influences the disease, as its association with other substances. On the other hand, the absorption more or less rapid of feculant matter, gives rise to a glycosuria more or less abundant. Thus after a dinner slowly digested the quantity of sugar in the urine would be less than after the same dinner quickly absorbed.

M. Dujardin-Beaumetz has used bread made of the germs of wheat separated in grinding. But the germs contain empyreumatic oils, the effects of which contraindicated its use.

This new pulse bread therefore deserves serious attention.

Distilled Tar Water in the Treatment of Hemorrhage. (*Revue de Therapeutiques*, July 1, 1888).

Dr. Corneille St. Marc has administered distilled tar water in numerous cases of hemorrhage, and has found that this product constitutes an excellent general hemostatic. Its properties closely resemble those of the hamamelis virginica. Dr. C. St. Marc concludes that distilled tar water, prepared with the wood and shavings of the fir trees of the Landes, constitutes an excellent remedy possessing tonic and astringent properties.

Administered internally it checks rapidly and surely inflammatory hemorrhage in the lungs, the uterus and kidney. It is the most prompt and certain method for arresting hemoptysis during the first two stages of pulmonary tuberculosis. It should be administered in doses of 40 to 60 grammes, in 24 hours.

Dr. C. St. Marc has never met with any accidents in employing this remedy.

Prof. Petresco, Bucharest, has analyzed the bryonia alba, a plant which is distinct from the bryonia dioica. He found that the bryonia alba contained resinous and glycosidic properties in the form of alcoholic and aqueous extracts. The glycoscide, to which M. Petresco has given the name of breine has a very energetic action. 20 centigrammes of this substance in 1 gramme of water administered to rabbits, produced the same results in these animals as 10 centigrammes produced in frogs.

M. Petresco has obtained excellent antihemorrhagic effects with bryonia alba, in several cases of post puerperal metrorrhagia. The dose usually employed is 20, 25 or 30 grains of the dry root, to 300 grammes of water. He considers that this substance may be enrolled among the most efficient remedies for arresting hemorrhage. M. Petresco has also treated successfully several cases of well marked pneumonia with infusions of digitaline (4 grammes of the leaves of this plant to 200 grains of water, and 40 grains of plain syrup) one tablespoonful of this mixture is administered every half hour.

The affection is usually suppressed in three days. The fever and local and general physical symptoms disappear rapidly. By this treatment the rate of mortality by pneumonia is reduced from 7.15 and even 30 per cent (the average death rate) to 1.22 per cent. M. Petresco found alcohol in large doses quite inefficient in treating pneumonia.

In complicated cases of pneumonia he strongly recommends hydrochlorate of caf-

feine, and extract of convallaria maialis administered in doses of 2 grains during 15 days.

In the 577 cases of well marked pneumonia treated by Dr. Petresco, this author never observed any toxic effects.

SELECTIONS.

THE BACTERIOLOGY OF YELLOW FEVER.

To the Editors of the Lancet. Sirs.—Since the publication in your issue of July 21, of your well known abstract of the resumè given by Dr. Delgado and myself of our bacteriological investigation on yellow fever in Hnvanna, we have obtained results confirmatory of our previous observations, and suggestive of a modification in the methods of cultivation which, if uniformly adopted, might avoid, it is hoped, future discrepancies between different observers.

Some of the criticism to which our "tetragenous microbe" has given rise might perhaps have been obviated by substituting some more comprehensive name, inasmuch as the characteristic feature of the Meristeæ (van Tieghem), consisting in the division of successive cocci in two perpendicular directions, does not always in our case culminate in the production of a pure tetrad. In drop cultures from pure colonies but a few days old, monococci and diplococci, and also chains mostly of four, but sometimes of three, five or six, are seen oscillating and twisting about in the field. The monococci split into diplococci, and the latter into triangulrr groups of three and in tetrads. Many are seen in diplococci which in reality are perfect tetrads, as shown when, by twisting around, the four beads momentarily come into view. and also when, after drying and staining, the number of tetrads is found to be much greater than they appeared to be in the liquid drop. The chains are not usually straight, but more or less curved, or even bent at an angle; their formation may be due to some circumstance which has delayed the tendency to a lateral development. The cocci in these chains are apt to multiply *in situ* without dissociating from the others, whereby new beads appear at the sides or extremities, producing longer irregular chains with, maybe, a tetrad in its course. During the "monococcus stage" the grouping, especially in dried preparations, may present all the characters of a "staphylococcus," and the chains might be called "streptococci"; but the fact that all these forms are found in the same culture, inoculated from a well isolated colony in an agar Esmarch tube, shows that they are but phases of development of one and the same microorganism. The property of liquefying gelatine might possibly appertain to one of these forms and not to the others. In the case of which Dr. Sternberg obtained "a micrococcus in tetrads, a streptococcus and a liquefying staphylococcus" from a piece of preserved kidney, such an occurrence might be suggested; but the fact that a short bacillus was subsequently found in the same colonies would account for the liquefaction without recurring to that assumption. During the last six weeks I have endeavored to clear up the two following questions:

1. Whether the microbe in tetrads and short chains observed by us during the epidemic season of 1887 would again be obtained this year, when proper precautions would be taken to guard against the inclusion of germs previously lying on the surface of the skin.

2. Whether, in violent cases of yellow fever running such a rapid course as to exclude every likelihood of a "mixed infection" (which I believe occurs in most of the melanic cases), a technique could be devised to bring into evidence the primary germs of our micrococcus supposed to exist in the tissues.

The first point we have investigated by taking surface cultures according to Dr. Sternberg's method, after washing the patient's finger with soap and water and strong alcohol, and again after additional washing with 1 per cent of bichloride and a second time with alcohol. The cultures, after the first washings (without bichloride) have sometimes shown the presence of surface

germs and at other times not; those after the bichloride application have hitherto remained sterile, the blood collected at the spot from which they had been taken produced colonies of our micrococcus in tetrads and short chains, and also a short bacillus, single or in chains. the latter resembling Babes' yellow fever *chainettes*. Blister serum, obtained with due precautions, likewise gave colonies of the same micrococcus and others of the bacillus in Babes' *chainettes*. This was a "melenic" case, with abundant black vomit, death occurring on the same day in which the serum was collected; it is possible, therefore, that the bacillus may have proceeded from a "mixed infection," originated in the gastro-intestinal tract.

For the purpose of investigating the second question we have been fortunate in obtaining a necropsy, three hours after death, in a case which proved fatal on the third day of illness, the diagnosis being founded on the usual symptoms: albuminuria, yellowness of the conjunctivæ (intensely marked after death), and congested mottled liver. No black matter or blood had been ejected during life, and only a grey-white, semi-liquid mass was found in the stomach and intestines. We collected juices from the liver, kidney and spleen in sterilized "bouillon bulbs," according to Dr. Sternberg's plan, every precaution being taken. Pieces of liver, kidney and spleen were soaked in a 1 per cent solution of bichloride, and wrapped in several layers of cloths steeped in the same solution. Some of the intestinal contents had been collected in dry bulbs. The technique which we adopted, as the result of previous experience, consisted in introducing the material to be examined in sterilized gelatine (15 to 20 per cent), remaining semi-fluid between 30° and 32° C. (the prevailing temperature at the time) keeping the tubes in a slanting position, and preparing agar-agar Esmarch tubes from any sediment or film which might appear in the gelatine. The bouillon bulbs containing juices from the liver, kidney and spleen, produced a whitish sediment after some forty-eight hours, which developed in agar Esmarch tubes, round, pale straw-colored, smooth-edge colonies, consisting of our micrococcus in tetrads and short chains. Those proceeding from the liver were larger and more developed, and those from the spleen the least so. The intestinal contents produced after a few hours a white film, which afterwards sank to the bottom, and gave in agar Esmarch tubes whitish colonies, round or with a notched border, consisting of a short bacillus, single, or in chains of two or three, with oscillatory movements, but not actively mobile. The preserved piece of kidney was unwrapped after forty-eight hours; it looked quite fresh and was free from smell. Direct preparations, with slides besmeared from the central portions and stained with Loeffler's alkaline blue, showed micrococci in pairs and in short chains, with a few tetrads, each group being surrounded by a clear zone, as if enclosed in a capsule. A bouillon bulb was charged from the central portions, and gave a whitish sediment in the gelatine tube, which produced in the agar Esmarch tubes the same pale straw-colored colonies of our micrococcus in tetrads and short chains. The preserved piece of spleen was found in equally fresh condition, but the slide besmeared from the cut central portion only showed a few groups of cocci. The bouillon bulb scarcely produced any sediment in the gelatine, from which no distinctly visible colonies were formed in the Esmarch tube, but only a few very small ones which never developed. The bichloride had probably diffused too freely through the substance of the organ. The piece of liver emitted a strong smell, and was therefore discarded. Stick cultures of all these colonies grew well in agar-agar jelly, subacid or neutral, those of the micrococcus forming a white or faintly yellow disc around the point of inoculation, whereas the baccillus produces a patch looking like paraffin wax.

In conclusion, it will be seen that our first question has been answered in the affirmative, and that our method of cultivation has proved, in this instance, remarkably successful. Our object in adopting it has been to place the primary germs in a less resisting medium than the hardened gelatine or agar-agar film of Esmarch tubes. After germination had once been started no further difficulty was to be expected. Perhaps with this method our former failures during the winter months may hereafter be avoided by providing a culture stove at 30° to 32° C.; but I am still of opinion that the primary micro-organism of yellow fever is apt to be destroyed, perhaps owing to a "mixed infection" in cases presenting suppression of urine, uremic intoxication, or typhoid symptoms.

I am, Sirs, yours very respectfully,

CHARLES FINLAY, M. D.

Havana, Aug. 11, 1888.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 16. ST. LOUIS, OCTOBER 20, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

DISEASES OF THE THROAT AND CHEST.

BY WILLIAM PORTER, M. D.

I. THE LOCAL TREATMENT OF DIPHTHERIA.
II. INTUBATION.
III. THE TREATMENT OF ANEURISM.
IV. DIGITALIS IN CARDIAC AFFECTIONS.
V. PULMONARY PHTHISIS.

THE LOCAL TREATMENT OF DIPHTHERIA.

Physicians in this part of the country will doubtless have to meet many cases of diphtheria this winter. Already instances are occurring in the different sections of our great city, and as the period for closed doors, crowded school rooms, and poor ventilation approaches, these will be multiplied.

A paper of clear thought and founded upon a large experience was recently published by Dr. Sanderson in the *Brit. Med. Jour.* He argued that apart from Oertel's elaborate researches, there was sufficient clinical evidence to show that diphtheria was primarily a local disease. The local lesion should be regarded bacteriologically as a "cultivation" upon human mucous membrane; and *ceteris paribus* —that is, assuming a uniform healthiness of organism—the constitutional poisoning was directly proportional to the area occupied by the cultivation. The diphtheritic membranes were a protecting blanket under which and in which this cultivation throve, and, moreover, were in themselves a mechanical danger, and aided the spread of the cultivation by transplantation and continuity. They should, therefore, be thoroughly dissolved early, and redissolved as soon as reformed. He knew of no solvent better than Finkler's papain, and described the method of applying it. Having thus exposed the cultivation, a germicide should be at once used; he preferred acid. carbolic. ʒj, glycerine, ℥j. He maintained that by taking a case early and treating the local lesion rationally on the above lines, the area and consequently the toxemia could be controlled, and the danger of invasion of the nose and larynx minimized.

While there will be many that dissent from these conclusions, yet they are good as far as they go. Right local treatment must ever be secondary to right general treatment, especially in the stage of the disease in which the physician generally first sees the case.

The method of him who would have success in the treatment of diphtheria must be to get there early, attack the local disease gently but actively, rouse the secretions to eliminate the poison already in the system, stimulate nutrition, and, not least of all, he must watch the case closely.

I care not what special agents are used if these general principles are followed.

INTUBATION.

This operation is not meeting with the reception abroad that its advocates in this country had expected.

At the meeting of the German Association of Surgeons, April, 1888, Dr. Thiersch (Leipsig) related his experience with O'Dwyer's method of intubation. He had performed the operation in thirty-two cases with only two recoveries. In all there was momentary improvement, the dyspnea at once disap-

peared, the respirations became more free, and the patients appeared better. In eighteen this improvement was temporary, and tracheotomy was later required. Although the disease was in most of these cases of a severe type, the mortality is, nevertheless, appalling. Thiersch's conclusions are as follows:

1. Intubation of the larynx is preferable to tracheotomy only where there is a slight formation of membrane, without swelling above the larynx. If membranes are present in large amount, tracheotomy should be performed, as it is not possible for them to be coughed up through the cannula.

2. Intubation is useless if swellings of the epiglottis and of the mucous membrane below the larynx are present.

3. Food pneumonias frequently occur.

4. The children frequently refuse nourishment.

5. Pain is sometimes produced in consequence of erosions of the mucous membrane.

The author explains the favorable results of intubation in America on the ground that the disease is of a milder type, and that no such compact formation of membrane is seen as is the case with German physicians. Dr. Behn, who took part in the discussion, agreed with the author. He had intubated in thirteen cases with four recoveries. He had found great difficulties in feeding his patients, and found it necessary to resort to rectal enemata in some cases. Dr. Rose (Berlin) called attention to the fact that catheterization of the larynx had been used in Germany for some time without success in diphtheritic children. His extensive experience has led him to believe that there are times when all cases of diphtheria recover, and again times in which they all terminate fatally.

After all that has been said and done about intubation, I cannot conceive that it will ever supplant tracheotomy, but rather will it be the resort of the surgeon where tracheotomy is forbidden by the parents.

In addition to the objections is the danger of crowding the false membrane down beyond the end of the tube.

The new tube with the artificial epiglottis has done much to prevent the food pneumonias spoken of by Dr. Thiersch.

The Treatment of Aneurism.

Prof. Germain See in a note read at one of the recent meetings of the Academie de Medecine, commends the use of iodide of potassium and antipyrin in aneurism. The potash salt acts not only on the muscular motor system, but also on the inhibitory cardiac nerves, diminishing impulse.

Antipyrin lessens cardiac impulse, thus favoring coagulation and relieving the tension upon the weakened artery. It also has a good effect where there is pain, angina, so frequently met with in thoracic aneurism.

These observations are endorsed by Dujardin Beaumetz. Both of these authorities object to surgical interference in aortic aneurism.

Treatment of Cardiac Affections.

Neither adonis vernalis nor convallaria majalis have been proven a substitute for digitalis. Where in cardiac disease a diuretic action is desired the digitalis may be used, and caffeine, or as preferred by Nothnagel, the digitalis may be given for five or six days, and the caffeine for ten or twelve.

Oertel recommends the treatment of cardiac degeneration by mountain climbing, but this is more theoretical than practical, and may be dangerous. In all pronounced cases there is danger from free drinking of any liquid. Nearly all the liquid taken into the stomach must pass through the right heart, and most of it through the left. Much drinking adds noticeably to the work of the heart.

Pulmonary Phthisis.

It may have been a disappointment to many that so little of practical result has come from the Congress for the study of tuberculosis recently held in France. Much good will, however, doubtless, follow the dis-

cussions upon the transmission and possible infectious nature of tubercle.

The opinion is gaining ground that tuberculosis may be transmitted, not only from the lower animals to man, but from man to man. This demands the careful study of the relation of sanitation to tuberculosis, and in this direction hundreds of experimenters and practicing physicians are working.

Meanwhile the treatment of phthisis can be outlined in a few words. Agents to decrease waste, good food, the free use of artificial nutrients, and withal, and very important, proper chest exercise.

This latter factor in the care of phthisical patients cannot be too highly rated, and is as reasonable as is massage or anything else intended to develop healthy functions. Having repeatedly advocated this procedure in other issues of the REVIEW and elsewhere, I will not refer to it at length, but insist that in all cases of phthisis, except acute cases or cases far advanced, proper lung expansion is a matter of the first importance.

ORIGINAL ARTICLES.

LESSONS FROM A FATAL MASTOID DISEASE.

BY SETH S. BISHOP, M.D., OF CHICAGO, ILL.

Read before the Mississippi Valley Medical Association in St. Louis, September, 1888.

After receiving two very kind invitations from your enterprising officers to attend this meeting, and to contribute a paper, I began to cast about for something new to present in the world of truth, as you have often done. I had neither the luck to happen upon it, nor the genius to invent it, so I concluded to seize upon this opportunity to impress upon a representative body of general practitioners a most important lesson the last year has taught. It relates to the dangerous and fatal sequels of inflammation of the tympanic cavity.

Suppurative inflammation of the middle ear is so common a disease that too little importance is attached to it by medical men as well as by the laity. Cases are of frequent occurrence in which patients have suffered an irreparable loss of hearing in consequence of being told that the discharge would stop if let alone. It would be possible to cite cases also where this advice has resulted in years of suffering from an offensive discharge, and consequent deafness, caries and necrosis of the bone, facial paralysis, mastoid fistula, and even meningitis, pyemia and death.

It has always been a surprise to me that any physician could give his patients such advice, if he considered for a moment the close anatomical relations that exist between the diseased tympanum and the mastoid cells, the lateral sinus, and the brain and its membranes. If an inflammation once started in the mucous lining of the nose and pharynx, travels with the utmost ease and rapidity through the Eustachian tube to the same membrane lining the tympanum, what is to prevent it going a little farther and invading the contiguous membranes that extend throughout the mastoid antrum and cells? Proper treatment may readily prevent it, but the power of nature often fails to limit the spread of this affection, as it fails to limit the extension of an erysipelatous inflammation of the skin from one part of the body to another.

In view of these facts, the only charitable inference is, that when the family doctor advises the expectant or do-nothing course in a disease attended with such pernicious results and fatal possibilities, he does so without bestowing serious thought upon the character of the malady.

The following case will illustrate the truth I wish to emphasize:

W. B., an interesting boy of 14 years, was brought to my clinic, at the Illinois Charitable Eye and Ear Infirmary, by his mother, on Nov. 17, 1887. He had a chronic suppurative inflammation of the left middle ear. His parents had been advised that he would "outgrow the running ear "if they would not "meddle with it"; but they finally came for consultation in consequence of pain which

had recently developed in the region of the ear. Examination revealed besides the tympanic disease a slight swelling over the left mastoid process, accompanied with redness, tenderness and inconsiderable pain, all the symptoms of periostitis. They were not sufficiently pronounced to indicate treatment by leeches or Wilde's incision, and I have often dissipated an apparently more violent inflammation in that locality by active and persistent counterirritation and leeching. Indeed, while writing this account I have succeeded, by this treatment alone, in conquering a diffuse, acute inflammation of the external meatus, the middle ear, and the mastoid periosteum, accompanied with exquisite pain and extraordinary swelling about the mastoid, the neck and the cheek. Therefore, as there were no signs of the presence of pus beneath the skin, or of a fistula, I advised the mother as to the possible bad termination of the disease, and requested her to bring the patient to the clinic daily, in order to prevent serious consequences, and upon her promising this, I began the usual counterirritant treatment with the essential oil of mustard. I did not hear from the case again until the night of Nov. 20, when I was summoned hastily to see a boy believed to be dying in spasms. I found it to be the same child. He lay unconscious in bed. The muscles of the left side of his face were twitching convulsively, distorting his counternance to such an extent as to make it hardly recognizable. The pupil of his left eye was dilated and not responsive to light. The flow of pus from the ear had ceased. Immediately I syringed the ear with warm water to reestablish the flow, if possible, and relieve the apparent intercranial pressure. This failed. Without loss of time, even to take the temperature or pulse, I made a long incision down to the bone, over the most prominent part of the mastoid process, about one-fourth inch from the auricle. Pus gushed forth with the blood, and the convulsions decreased in intensity. I syringed the wound cavity, and had the satisfaction of seeing a speedy cessation of the spasms, and the restoration of the boy to consciousness.

There was sufficient presumptive evidence of secondary purulent inflammation of the mastoid cells, and of a communication with the cranial cavity to warrant an operation with the drill, and the family were so informed. But when I visited the patient in the morning he appeared so well and natural I could not command sufficient eloquence to convince the parents and friends that there was any serious occasion for operative interference. So I had to content myself with antiseptic and antiphlogistic treatment, and giving free exit to the pus so as to prevent another intracranial accumulation, or pyemia by means of an opening into the lateral sinus.

Under this treatment the boy's apparent progress was so deceptive as to his real condition that the family wondered why the doctor had suggested an operation, for he seemed to be getting well. His appetite was excellent, his general functions unimpaired, his mind was clear, his desire to play returned, and he asked for his drum and gun, and laid plans for a hunting trip. But his temperature during the week following Wilde's incision ranged between 99.6°F. and 101.6°, and his pulse averaged 80, not falling below that nor rising above 86. On the morning of the seventh day from my first visit his temperature was normal, and his pulse 80. In the evening his temperature had not varied, but his pulse had fallen to 60. The next morning his condition was unchanged, but in the evening his temperature had dropped to 97.8°.

On the morning of the ninth day his temperature was 97.9°; his pulse had fallen to 52, and his respirations were 16. During the succeeding three days that I saw him, his temperature gradually arose as follows: 98.1°, 98.3°, 98.9° and on the evening of the eleventh day, 98.7°. His pulse became feeble and respirations between 14 and 18. From the time his temperature dropped below normal he became indifferent to food and friends. He objected to being disturbed, and complained more and more of pains in the left frontal and temporal regions. His pupils, not irregular at that time, responded

sluggishly to light. His bowels became torpid, and he did not void urine. I evacuated the bladder daily with the catheter, employed tonic and supportive treatment, kept the ear and mastoid wound cleansed with antiseptic solutions, and repeatedly urged the necessity of an operation—the only hope left. I prepared to operate, and engaged the assistance of another physician, but the horror of a surgical operation decided the parents against it, notwithstanding the fact that they had already seen their boy's life saved by a cut of the knife.

Finally I told the family that since they had tied my hands by refusing the only succor medical art could offer, I could accomplish nothing more for their child, whereupon I was dismissed. On Friday, Dec. 2, they called a competent obstetrician who counseled them to remove the child to a general hospital where he died two days later.

To complete the history of this interesting but unfortunate case, I will append the hospital record, kindly supplied to me by Dr. Scheuer, the interne who had charged of the boy after his admission.

Friday, 2 P. M.: Temperature 99.2°F, pulse 66, hard and irregular,entered in stupid condition, could be aroused, would answer in monosyllables, sometimes talked coherently. His pupils were normal, his left eye closed but he would open it occasionally. He passed a small amount of highly colored urine. Bowels had not moved for four or five days. Prescribed three-drop doses of tincture of aconite every three or four hours, and one-fourth grain of elaterium. Saturday, A. M. Temperature 99.6°, pulse hard and irregular, bowels moved four times in the morning, patient's mental condition unchanged, complains of pain in frontal region, 5.30 P. M., had a convulsion, face blue, etc., muscles on left side (of face) only affected, according to friend's statement, pupils normal. Saturday, P. M. Pulse 68, temperature 99.3°. Aconite had been given during the day in three drop doses. One-sixth grain of morphine was given at 8 P. M.

During the night the friends who had been watching with the boy retired, and when they returned to his bedslde at 6.30 Sunday morning they found him dead.

One important feature that should not be lost sight of was the sign of cerebral complication as evidenced by the condition of the patient's left eye. There was dilatation and sluggishness of the pupil, and loss of power over the lid. I am not prepared to think this a unique case in respect to the eye symptoms, for they may have been overlooked by other observers, but in studying the literature of the subject I have been struck by the absence of any mention of these characteristics in nearly all of the fatal cases of which I have obtained reports.

There was hardly any room for doubting the existence of meningitis and cerebral abscess, consecutive to the mastoid inflammation, as indicated, first, by the great amount of frontal and temporal pain, and, second, by the convulsions, partial paralysis, dilatation and sluggishness of the pupil, low temperature, etc., but no autopsy was had.

This melancholy case teaches a lesson to the laity as well as to the profession. It illustrates the helplessness of the surgeon when disarmed by the patient's friends in the face of the patient's mortal enemy. The needless loss of the life of a promising boy who had safely weathered that period of life which is beset by a formidable array of children's diseases, is the more lamentable in a country that opens a thousand avenues to wealth and honor and fame, from the frontier hamlet to the White House at Washington. One beautiful life saved by the doctor may mean a world of possibilities to the individual, to a family, and to a generation. Yet it is a grave question whether a surgeon, opposed by the chimerical prejudices of the mistaken friends of the patient, may open the skull to save a life. In private practice he cannot, in hospital practice I hold that he can. This excludes the question of pay patients in public institutions. In private patients, an unfortunate termination of a disease after an operation performed under the protests of a family might expose the opera-

tor to interminable trouble, denunciations, and expensive litigations, whereas, in hospital cases there is an invulnerable support of close councilors and able assistants with common cause.

In the case cited, the strength of the opposition to operative treatment may be imagined when it is known that at the time I had just issued a report of seven similar cases I had treated during the preceding year with uniformly successful results of the operation. In fact, I had never been so unfortunate as to have had a fatal termination after the operation, up to that time. I have had one since, but in that case death was a foregone conclusion, for pyemia had occurred sometime before the operation, by means of a direct communication between the mastoid cells and the lateral sinus, as the autopsy revealed. It is a serious question whether, under such unpromising conditions the operation should be resorted to, as affecting the reputation of both the operation and the operator, but in view of the fatality of the disease, and of the strong probabilities of a cure, I advocate the operation wherever there is a ray of hope.

SOME PRACTICAL POINTS IN DENTISTRY.

BY WM. CONRAD, D.D.S., ST. LOUIS., MO.

Read before the Mississippi Valley Medical Association, Sept. 28, 1888.

Mr. President and Members of the Mississippi Valley Medical Association:

In response to an invitation from the chairman of your committee of arrangements, I have prepared for your consideration a few practical suggestions,and hope they will be of such a nature as to be of interest, and per haps of value to the general practitioner.

The subject of Dentistry is an extensive one, and for me to enter into the details, would take more time than can be given to it at this meeting, consequently I will refer to but a few points, brought to my notice by my medical friends.

The recent action of the Amer.Med. Association, and International Medical Congress, in asking dentists, as dentists, to become permanent members,and to take part in the deliberations of these bodies, will do much to create a class of practitioners, more in harmony with the general sentiment of advancement.

The knowlege of the medical world to day is too extensive for anyone man to become generally proficient; all that can be expected is that the members be thoroughly grounded in the fundamental principles of Medical Science, and then prepare for that special department for which they are by natural talent most suited.

Having had considerable knowledge as to the workings of both medical and dental schools, I do not feel that I am claiming too much for dentistry when I class it as one of the legitimate specialties in medicine.

In order to show you that the recognition which the American Medical Association has extended to us, is not without good foundation,I will say that the dental colleges of this country require of their students a preparatory education, this to be determined by a preliminary examination; one year of study before entering upon a course of lectures;and two full years in some reptuable dental college before being admitted to graduation. Most of our schools are now connected with state universities or medical colleges, the course of study being the same for both medical and dental students, with but few exceptions.

At a recent meeting of the Association of Dental College Faculties, a resolution was presented to extend the time of the college term to three years, the lecture course to be not less than five months each year, and the balance of the time to be devoted to practical working laboratory and infirmary.

At a joint meeting of the American Association, and the Southern Dental Association, held at Louisvlle, August 28 to 31, 1888, the general sentiment of those present was for a broader culture, and a more extended course of study, for example, preliminary education in some college or high school, gradua-

tion from some reputable medical college,after which, special instruction in some dental college, with perhaps a post-graduate course in oral surgery. This you will observe, gentlemen, will be quite an elaborate preparation for the practice of dentistry, but the sentiment in our specialty for this advance is constantly on the increase.

I have been told by my medical friends that there is need for a more intimate association between physician and dentist. Especially is there a necessity on the part of the general practitioner for a more thorough understanding of the principles of dental science. I found this to be true while attending medical lectures,the students being totally ignorant as to dental diseases, and dental treatment, there being little if any instruction on these subjects.

I will now outline briefly, some of the most important things with which the general medical practitioner should be familiar.

Care of the Teeth.

The pnblic generally, and the physician in particular, should understand what is required to keep the teeth clean, and the contiguous parts in a healthy condition. Cleanliness must be insisted upon, and could this be obtained, there would be no further trouble,but as absolute celanliness is impossible, owing to our manner of living, to appropximate this is all we can expect. The teeth from the eruption of the temporary or deciduous set to the end of life should be cleaned at least once a day before retiring, with tooth brush, tooth powder, and warm water, every surface of every tooth should be brushed every day in every direction. Tooth-picks should be used after each meal The tooth brush should be medium in stiffness, the powder should be precipitated chalk. No substances, such as liquids, soaps, grits, or acids, should ever be permitted in the hands of the patient. If the teeth can be kept perfectly clean there will be no decay, and consequently no need for repair. A competent dentist should be consulted often enough to prevent any loss due to lack of proper attention.

The Temporary Teeth

are twenty in number, and have an important part to play in the human economy. They should be preserved until the permanent ones are ready to take their place. The premature loss of these organs, is the cause of many dangerous complications. Cavities of decay in them should be filled, even at the age of two years. When you find deposits, or stains on them these should be removed. The child should be instructed to brush the teeth and mouth from the very first.

The Permanent Teeth

commence to erupt at about six years of age. The first tooth of the set to appear is the first molar, which, in many cases, you will mistake for a diciduous tooth, unless the subject has been brought especially to your notice. It should be looked to, and cared for, as it is the most important tooth in the mouth. Many times it will be found decayed to the pulp before any danger is suspected, then the greatest skill is required to save it.

Cases of Dental Irregularity

should be corrected at the proper time, and directions as to how to do this, can only be given after an inspection of each and every case, as no two are treated alike.

Extraction of Teeth

is an operation you are often called upon to perform, and unless you are thoroughly acquainted with the value of these organs many teeth and roots will be lost. A complete set or teeth is rare, and the indiscriminate extraction has done much to make it so. I have seen cases where the extraction of one or two teeth has resulted in the loss of the the entire set. No tooth or root should ever be removed except for a specific purpose, and the reasons for the operation perfectly understood by the operator. The patient should never be considered a good judge in such cases. No artificial substitute can ever replace in usefulness a fully developed and complete set of teeth. Anesthetics as used to relieve pain when extracting teeth, should be deprecated, and practitioners who advertise anesthetics or gas given, etc., should be discountenanced by medical men.

The dangers are too great for such minor operations, and it favors the loss of many good teeth.

THE TREATMENT OF PULPLESS TEETH

has become with us, almost an exact science. A root canal that has been properly treated, and perfectly filled to the apex of the root, should never give trouble, or become sore through pericemental inflammation. This fact is not generally known, and results in the loss of teeth and roots that might otherwise be saved. Neuralgic cases, that are attributed to the teeth, may just as well be relieved by proper treatment, as by extraction. Many physicians demand the extraction of teeth in such cases, which to my mind is bad practice. A duty you owe to your patients. is to get a better knowledge of this subject, and to see that they receive the best of care.

CAVITIES OF DECAY,

should be treated in such a manner, that the disease is arrested, and a recurrence prevented if possible. Aching teeth can be relieved in many ways. Chloroform, carbolic acid, oil of cloves, etc., will do it, if the pulp is alive, if dead, nothing but a vent, for the pus or gas will do any good. Temporary stoppings of gutta percha, zinc phosphate, wax, or cotton and sandarach varnish can be put in by any of you.

DENTAL LITERATURE

has made great progress in the last few years, and the aim is for a more scientific standard of excellence. The monthly journals are giving all of the most advanced methods of practice; and it would be well for the general practitioner to take at least one.

THE CODE OF DENTAL ETHICS

is very exacting, and you may say it is too much so—for example it permits only the name, title and address, being on our cards or signs. Every dentist who is a member of a Dental Society, is required to subscribe to the Code of Ethics, as laid down by the American Medical Association, with the exception of some minor changes, where our special practice seemed to require it. You should be very careful as to the dentist you recommend to your patients. They should violate none of the rules, as given to you by the American Medical Association Code of Ethics.

DENTAL SOCIETIES,

have done much to improve the practice of dentistry, and the future is such, that no progressive dentist, can afford to do without their aid: they are to some extent our post-graduate schools. The dentists of this country, intend to make the Section on Dental and Oral Surgery, one of the best in the American Medical Association.

Microscopical research is being scientifically pursued by many dentists. Bodecker and Heitzman, Abbott, Sudduth, Miller, Black, and Patrick, are among the advanced teachers. Oral surgery is being practiced by many with success.

Implantation of teeth is an operation too new to be recommended without due consideration. Two years is the longest time, any implanted teeth have been in the mouth, and seven per cent of the total number implanted have been failures. A resorption of the root, is always liable to take place, no matter how successful the case may appear. Still we hope for much, and are not discouraged.

Artificial crowns have reached such a degree of perfection, that there is hardly a root so frail that one cannot be adjusted successfully, and they are the best substitutes for the natural teeth we have.

The fraternizing of the physician and dentist is a necessity of the future—one can be a help to the other—and the patients will get the benefit of the knowledge so created.

Mr. President and gentlemen, let me thank you for the courtesies extended to me, and through me, to practitioners of Dentistry.

J. B. LIPPINCOTT & Co. are now binding a New Edition of the United States Dispensatory, nearly eight hundred pages of which is entirely new matter, while the whole work has been carefully rewritten. The National Formulary has been incorporated. A reliable dispensatory is a great convenience to the city physician, and the country practitioner who has used one can scarcely practice without it.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, OCTOBER 20, 1888.

THE SECTION ON DISEASES OF CHILDREN OF THE A. M. A.

On another page will be found an announcement by Dr. Jno. A. Larrabee, President of the pediatric section of the A. M. A.

The REVIEW endorses every word said by Dr. Larrabee, and is determined to use its every effort for the advancement of this cause.

There is no more important subject for the general practitioner, and it must not longer be neglected.

The division between obstetrics and pediatrics is a marked one, and to again remand children back to the care of the Sarah Gamps and grand-mother's tender mercies, while the accoucheur's attention is absorbed by the allurements of ruptured perineums, lacerated cervices, uterine subinvolutions and mammary abscesses would indeed be moving backward. Let us organize a good crowd of enthusiastic workers and proceed in force to Newport next June and vote for the needs and rights of the little ones. In the meantime a strong list of papers must be secured and strong men must be there to discuss them. The pediatric section is now officered by two of the ablest and best workers in the department, and the session will surely be a good one.

It seems indeed strange that there should be an effort to practically abolish this important specialty in the A. M. A., when only last year the dental section was created and the disposition seems to be now in the direction of making an additional department, that of pharmacy. Such men as J. Lewis Smith, Jacobi, Keating, Star, Eustace Smith, Jennings, Waxham, Forchheimer, Wm. Perry Watson, Larrabee, and a score of others that could be mentioned are certainly strong arguments in favor of pediatrics being a specialty that has come to stay. A proposition which would abolish this special field of work would also scatter to the winds each and all of the sections and sub-sections of the profession.

I. N. LOVE.

AIR IN SUPPURATIVE SWELLINGS OF THE ABDOMEN.

Dr. Edward Malins reports four cases (*Lancet* Sept. 15) in each of which percussion over the site of an abscess in the abdominal cavity gave distinct evidence of the presence of air rather than fluid. In each case, immediately on opening the abscess cavity a quantity of foul-smelling gas escaped, after which a pint or more of felid pus was removed from the cavity. Dr. Malins thinks the resonant sound on percussion was due to the collection of the gas at the upper portion of the abscess cavity. He says:

"The decomposition of the fluid in these cases is rendered more possible from contiguity of the intestinal tract, and probably from bacilli, which find their way more readily from the intestines through tissues undergoing the changes of inflammation. Thus they become the foci of changes from which decomposition results. It is most likely by this means that such comparatively rapid changes take place where the cellular tissue of the pelvis or abdomen is concerned, and why decomposition is so frequent in this locality."

I see no reason why the method used in diagnosing pneumo-pyothorax would not have been equally efficient in these cases. By changing the position of the patient so that the most dependent portion of the tumor could be percussed, the area of dulness and resonance would have been found to change

Such cases are well calculated to mislead surgeons who are less thorough than Dr. Malins in their examination.

A Plan for Promoting the Mutual Interest of Physician and Pharmacist.

Some time ago the *Pharmaceutical Era* offered a prize for the best paper on the relation which the physician and pharmacist bear to each other. The editor of the *Amer. Lan.* endorses the suggestion of a correspondent of the *Era*, to form a society in each city and town known as the Medico-Pharmacist Association, which shall be governed by the following rules:

1. All regular qualified physicians and surgeons and druggists in the town or city where the medico-pharmaceutical association is formed, to be eligible to membership.

2. All members to consider themselves in honor bound to abide by the rules and regulations of the association to which they belong, and deem it their duty to do all in their power to further and strengthen their interests.

3. All physicians agree to hand over to the pharmacists the dispensing of all medicines, except in cases of the greatest urgency either in regard to time or place.

4. All pharmacists to agree to abstain entirely from prescribing.

5. All physicians to be entitled to a pro rata percentage upon the dispensing of their prescriptions—the rate to be fixed by a two-thirds vote of the Association; and to be collected by the druggist along with his charges.

6. A regular tariff of charges for dispensed medicines to be agreed upon by the pharmacists; to which tariff they pledge themselves to adhere—the physicians' percentage in all cases being included in the rate fixed upon.

7. The physician to be entitled to his percentage when the medicines are dispensed by his own regular pharmacists; but in all other cases the percentage to be retained by the pharmacist as his own additional fee.

8. Every Medico-Pharmaceutical Association to select the usual officers and to make by-laws for its own guidance and control.

All will admit that physicians and pharmacists have some interests in common. But those interests are by no means great enough to hold together a society such as is suggested above. I very much doubt whether it is possible to form such a one. Certainly there is nothing to be gained by the physician in such a combination. Physicians now carry too few drugs. The hypodermic of morphia is often given when other remedies would be used if they were at hand.

The greater part of "counter-prescribing" is done by suggesting to, and not by advising customers to take certain drugs. It is the exception that a druggist takes the responsibility of making a physical examination. A patient enters a drug store and says: "My liver needs stirring up. What is good for it?" The druggist has on his shelves, perhaps, half a dozen different kinds of pills, any one of which is a sure cure for all liver-complaints. Now so long as the druggist keeps such preparations in stock, he would be committing financial suicide, if instead of showing his goods, he advised his patient to consult some physician. The time will never come when such a customer will be unable to find a drug store at which liver pills can be purchased.

Surely it was a druggist who suggested the fifth rule. A man who is ashamed to present a bill for his just dues, or worse who seeks to induce his patients to think that his charges are light, by collecting a part of his fees through the druggists is not worthy of recognition as a man, much less as a physician. Such conduct would be nothing less than collecting money under false pretenses.

I am glad the *Amer. Lan.* added that he thought these rules could be improved upon.

American Association of Obstetricians and Gynecologists.

Several national societies of specialists have recently been organized and held their first meeting in Washington, in September, as a

part of the meeting of the Congress of American Physicians and Surgeons. Of this list we are pleased to notice the American Association of Obstetricians and Gynecologists, a society composed of the best and most progressive members of the medical profession who are interested in the study and practice of these special departments. The scientific excellence of the papers and the discussions at the meeting in Washington, bespeak a future of great usefulness to the medical profession.

Sending Prescriptions to Certain Druggists.

Adolph G. Vogeler, of Chicago, writes the *Western Druggist*: "Self-interest or ill-guided judgment may often honorably prompt the physician to insist upon his prescriptions being dispensed at some designated establishment, especially where it is a well-known fact that not all so-called pharmacists are competent and conscientious."

I fail to see why the advise of a physician to his patient as to the best place to have prescriptions filled, should be attributed to "ill-guided judgment." He is in honor bound to give his patient that which in his judgment is the best opportunity for recovery. So long as "not all so-called pharmacists are competent and conscientious," it is the physician's duty to see that his prescriptions are filled by competent parties. He has as much right to patronize a certain druggist as the latter has to purchase his goods of a certain wholesale house. Dishonesty, and criminal incompetency should be exposed at all times, but it well becomes both physician and druggist to be slow, each to condemn the mistakes of the other. Statements derogatory to the character of anyone, are best left unmade unless the occasion imperatively demands it.

A Doctor's Cane.

A correspondent to the *Med. World* proposes that "we all carry a cane—a doctor's cane—especially made for use as an instrument holder, a walking-stick, and a token that the holder is a physician." He proposes that the stick be made hollow for a part of its length, opening on one side by a small metal hinge. "Here one could stow away probes, bougies and soft catheters, artery forceps, lancet, bistoury, silk plaster, vaccine tubes or points, hypodermic syringe, and many other of the smaller paraphernalia usually carried in the pocket-case."

I hardly think it possible for anyone to suggest a more unwieldy instrument case, than one herein proposed. Its inventor must live in a country where all the physicians *walk* to see their patients. There are other means of advertising, for more convenient and decidedly less compromising to the dignity of the profession.

EDITORIAL ECHOES OF THE M. V. M. A. ANNUAL MEETING AT ST. LOUIS SEPTEMBER 25, 26, 27, 1888.

BY I. N. LOVE, M. D.

During the entire meeting not a single discordant note was heard. The scientific work was done promptly and well. Everything in the way of business passed off harmoniously, satisfactorily.

The social part which occupied all the evening, and the afternoon of the last day was apparently enjoyed by all.

Vesuvius never erupted more grandly, nor did Pompeii ever fall more gloriously than on the evening of Tuesday, the first day of the session, when their efforts were directed toward the particular pleasure of the M. V. M. A. members. The special display of Pains' unrivalled fireworks after Pompeii's destruction had been complete, was never surpassed. "The Welcome to the M. V.M.A. of 1888" waxed brilliantly, expressing the sentiment of the local profession warmly with tongues of fire.

The burning sentiment "Science and Sociability United" was a pronounced and perfect announcement of an obvious fact, although the pyrotechnic artist who constructed the mechanism was a little off on his

orthography when he made it read "Sciance." The Committee of Arrangements aver that the fault was not in the copy furnished him.

The noble classic head and face of Dr. Jno. T. Hodgen with the legend underneath, "A Friend to Humanity," illumined the surrounding darkness, and was truly a sparkling crystallized epitome of the manner in which he pervaded and still fills the hearts of the profession and the people of the Mississippi valley. In every sense of the word the evening was a complete success, and the management of the Cable Railway and Kensington Gardens, as well as Mr. Wilson, manager of Pompeii, are to be congratulated.

* * *

On Wednesday evening the warm and home-like hospitality of St. Louis' best citizens was illustrated by the receptions given the visitors by Col. and Mrs. Richard C. Kerens, of Vandeventer Place, Mr. and Mrs. James T. Drummond, of Delmar Avenue, and Dr. and Mrs. N. B. Carson, of Pine St. Had there been a sufficiency of time half a score more of our best homes would have been similarly opened.

* * *

On Thursday, the last day, after a continuous session of five hours, from 10 A. M. to 3 P. M., President Reynolds declared the session of 1888 adjourned *sine die.*

Carriages were in waiting, and the delegates with their wives (actual and in prospect) were driven in carriages to the Fair Grounds, and at the club house were dined and wined to their heart's content.

The solid and liquid *menu*, consisting of eight courses, was abbreviated toward the close in order to give an opportunity for the guests to hear from some of the representative men in various sections of the territory covered by the M. V. M. A.

It was, of course, the official duty of the Chairman of the Committee of Arrangements to serve as toast-master, and after calling the company to order, and announcing that three minute speeches would be the rule, the following came in the order named, viz.:

"The Mississippi Valley Medical Association of 1888," responded to by Dr. Dudley S. Reynolds, of Louisville, Ky., the retiring president of the Association.

"The Mississippi Valley Medical Association of 1889, responded to by the president-elect, Dr. George J. Cooke, of Indianapolis, Ind.

"Medical Profession of the Provinces and the Country Tributary to the Larger Cities," responded to by Dr. J. E. Teffts, of Springfield, Mo.

"Medical Profession of one of the Small Provincial Towns of the Valley," responded to by Dr. S. S. Bishop, of Chicago, Ill.

"Our Brethren of the Queen City of the West who so Recently Entertained us Royally," responded to by J. C. Culbertson, of Cincinnati, O.

"The Loyal and Faithful Workers in the Profession who are Possessed of Bowels, Brains and Heart true to its best Interests," responded to by Dr. Thomas B. Harvey, of Indianapolis Ind.

"The Eloquence and the Scientific Development of the South, the Land full of Beautiful Women, Fast Horses and Sour Mash," responded to by Dr. Joseph M. Matthews, of Louisville, Ky.

"One of the Smooth-faced, Able and Brilliant Lambs of the Profession," responded to by Dr. J. L. Gray, of Chicago, Ill.

"Women in Medicine, and Particularly the One who will surely Favorably Influence by her Graces and Attractions of Mind and Person all who Oppose her Advancement," responded to by Dr. Rose Bryan, Chicago, Ill.

"The Medical Men of St. Louis who have so Hospitably and Cordially Received, as they Always do, their Guests," responded to by Dr. Young H. Bond, president of the St. Louis Medical Society.

"Medical Journalism as a factor in the Advancement of the Profession," responded to by Dr. George Halley, editor of the *Kansas City Med. Rec.*, of Kansas City, Mo.

"The Head-Workers and Bread-Winners of the Medical Profession of the West and

South, responded to by Dr Wm. Porter, of St. Louis.

"The Country Doctor: he of the Spartan Force and Faithful Blood, responded to by Dr. David S. Booth, of Sparta, Ill.

"The Ladies," responded to by Dr. Nicholas Guhman, of St. Louis.

"The Public Spirit of St. Louis and her Citizens," responded to by Mr. Jordan W. Lambert, of St. Louis.

The speeches were uniformly crisp, bright and sparkling, and all gave evidence in favor of making such occasions entirely impromptu.

In no instance was any speaker notified that he would be called upon; in fact, I have information sub rosa from the toast-master that in most instances neither sentiment nor speaker was in his mind until after he had arisen to his feet to announce the same.

All went merry as a marriage bell, and all too soon time rudely clipped the wings of eloquence and sped the parting guests.

* * *

The banqueters were soon in their carriages and returning to the city, and the hour of 8:30 P. M. found them in the great music hall, listening to the special concert by Gilmore's band.

The arrangement of the programme prepared by Col. Gilmore, was perfect, there being a free mingling of classical music and popular melodies, the closing one being that which I would sooner have been the author of than to have won the world's greatest battles and the crowns of kings.

Yes, even though John Howard Payne was a homeless wanderer, and died a stranger in a far-away land, his name will go ringing around the world with the notes of this noble song as long as men and women live and love their loves, which will be as long as the world goes round. The vibrations which wafted out upon the evening air, the divine tones of Home, Sweet Home, completed the capture of the heart's of the visitors, and it was a rude awakening when the hour came for separation and the final good-byes.

* * *

The paper of Dr. Conrad, of St. Louis, on "Practical Points in Dentistry," was excellent and timely, as medical men need light from that direction. The article appears in this issue, and will well repay perusal.

* * *

Men may come and men may go, but the ever faithful Brooks will go on forever, or at least as long as he lives in this vale of tears. I refer to Brooks, the Carthaginian of southwest Missouri—he will surely go on as a sincere searcher after truth, a devotee to science. His paper was good and well discussed, but he made a most palpable hit when he at another time was called upon by President Reynolds to speak on some subject (what it was has escaped my mind) which had been well handled by the essayist. He (Brooks) arose slowly and measuredly said (his calm and thoughtful face emphasizing his words), "I can say nothing that has not been better said by the writer of the paper." He then sat down. The president complimented him upon his brevity and his frankness. Thus he is, always sincere and true, never saying unless he has something to say, never doing without something to do.

* * *

The only sad event of the entire meeting was the accident to the noble Roman, Dr. Thos. B. Harvey, of Indianapolis. On starting to the Fair Grounds Thursday afternoon, being seated in the carriage, the driver carelessly caught the doctor's hand in closing the carriage door and crushed two fingers. The injury was promptly dressed by Dr. Mudd, and Dr. Harvey continued on his pleasure trip, bearing his suffering like a stoic, and, fortunately, the sad event was not generally known. Information has been received to the effect that he has now completely recovered. Nature is rarely so lavish in her use of materials in building men as when she constructed Dr. Harvey. Morally, mentally and physically he is a nobleman of heroic stature, with a heart that goes out to his fellow man as the needle to the pole, and attracts the hearts of others as does the magnet draw the metal. He was born a lover of men, and it is fitting that he should be a leader of men.

Good men and true love to be led by such as he.

* * *

Since the meeting of the M. V. M. A. it will be observed that the REVIEW has been quite late in its various issues. This has been partly due to the fact that the management was desirous of furnishing a full report of the meeting, and this has been interrupted in many ways. In addition it took the staff some little time to get itself together after the arduous duties of convention week.

CORRESPONDENCE.

CONTAGIOUS FEVERS.

COALBURG, ALA, Sept. 28, 1888.

EDITOR REVIEW.—In December, 1856, I was in Honolulu Aahee, (Sandwich Islands), was taken sick with a chill, followed by high fever. I was delirious for three days, at the end of which time I perspired very freely, and remember of being very weak for several days afterwards. When first taken I asked for a physician, but the natives would not allow it, telling me I would be well in a few days and did not require a doctor. They kept me in a closed room and covered up in bed, gave me a liberal supply of water to drink and occasionally some lemonade. The sensations experienced during that fever are very vivid to my mind now. My head ached terribly, and I appeared to be constantly falling from some precipice, and would often find myself holding on to the bed clothes or posts to keep from falling. The least noise sounded like the booming of cannon, a step upon the floor was unbearable. I was allowed nothing to eat during the fever, neither was I permitted to leave the room for any purpose whatever, or to have the bed covers removed, they telling me that it would kill me if I caught cold. The fever left me on the evening of the third day, when I began perspiring very freely,a native remaining with me all night to keep me well covered. I was permitted the next day to partake of some rice and soup, and in a day or two full diet.

The disease was called in those days Boohoo fever, or a fever of acclimation.

The similarity of this fever to the one that is now the all-absorbing topic in this section of the country calls forth this letter.

Here are two (if not the same) fevers presenting a train of symptoms identical, one is not considered dangerous and demands no treatment, while the other depopulates whole sections of the country and is vigorously medicated with all manner of drugs. Both endemic in the same degrees of latitude, never originating north of the 30°. A specific fever, self limited, presenting a definite train of symptoms, ending in a profuse perspiration, and if from any cause there should be a suppression of the perspiration we have resulting, congestions of mucous surfaces, suppression of urine, hemorrhages and death.

I have been informed that a very prominent physician, of Jacksonville, Fla., made the remark the other day "that the negroes who took the fever recovered, if they did not call a doctor!" Can any physician by the administration of drugs shorten the duration scarlet fever, mumps or the measles? Most assuredly not. But by proper nursing, and the judicious exhibition of mild medicines mitagate in a great measure existing conditions where by their continuance they endanger life.

Yellow fever, in my opinion, should not be treated like congestive fever. Quinine nor any other known drug has ever been proven to have the least influence upon its duration, it cannot be aborted, and it is useless to attempt it. Should I be called upon to treat a case of yellow fever I should do the same as the Kanakas did me, place my patient in a well ventilated room, give him plenty of fresh air, cover him up in bed, and allow him cool and refreshing drinks, and on the theory that the disease depends upon the introduction into the circulation of a germ that matures and finds its lodgement in the different excretory ducts and passages prior to its elimination, as the liver and the bile ducts, kidneys and intestines, I should administer

a remedy that would have its action upon these parts of the body without producing any over stimulation or irritant action, and at the same time be antiseptic. Such a remedy I should think might be found in hyposulphite of soda, in some bitter infusion as quassia, or else in seltzer or Appolinaris water: if body heat should be excessive sponging with tepid water. When fever began to subside, or at the expiration of the third day, if symptoms indicated any urinary suppression I would exhibit salicylate of soda with spts nitre dulc and digitalis in small doses often repeated.

The poison of yellow fever, whatever it is, enters the system by the air passages, goes directly into the circulation, and when it reproduces itself in a sufficient quantity to affect the individual a chill and resulting fever follows, it then is eliminated through the natural outlets, as the skin, liver, kidneys and intestines and as a result of this effort of nature to eliminate the poison, these excretory ducts necessarily become swollen and congested on account of the irritant action of this morbid material. Should there be during this period a sudden chilling of the surface (the skin) it throws more labor upon the liver and kidneys, and as a result we have occlusion of the hepatic ducts and ureters and congestion of the stomach and intestines, hemorrhages, black vomit and death.

Any drug that is given during the fever that seriously affects or irritates the proper functions of the liver or kidneys will most assuredly only add to the danger when nature endeavors to eliminate the poison at the proper time.

If active diuretics are given a child in the early stages of scarlet fever, it will be followed by dropsical effusions, suppression of the urine in the later stages.

If cathartics are given a person in the early stages of measles it is certainly to be followed by dangerous diarrheas in the latter stages.

If calomel should be given in the formative stages of a case of mumps, look out for squalls within a week.

Treat a case of measles for the coughs, with ipecac and squills in the early stages, if you wish to have lung trouble follow.

The proper treatment for this dread disease, seems to me not to be the attempt to break it up as one would a case of chills and fever, but to nurse it and mitigating existing conditions where by their continuance they endanger life, and to be positively sure, that whatever drug is given that it will not induce an action that will prevent natnre's effort to eliminate the poison.

I am not writing this for the purpose of securing the $100,000.00, therefore, this formula will not be copyrighted.

J. M. Armstrong.

LAPAROTOMY—A SINGULAR CASE.

Dr. Wm. Varian, of Titusville, Crawford Co. Pa., recently operated for an ovarian tumor, but after opening the abdominal walls, discovered that there had been a mistake in in diagnosis, as instead of there being an ovarian tumor he found an eight months pregnancy.

When the mistake was discovered the doctor proceeded to open the uterus by incision of its walls, and removed therefrom a live, well developed male child that died on the second or third day after its delivery. The mother recovered after a protracted struggle.

A number of reputable physicians were present by invitation to witness the operation, but as they had made no examination of the case they had none of its responsibilities. There were also a number of ladies, prominent in church and other circles, present as spectators.

Of course, such a mistake under such circumstances was somewhat embarrassing to the operator, who stated that he had made three critical examinations of the case and failed to detect the pulsations of the fetal heart or discover the existence of pregnancy by any of the various methods relied on by the profession to make a diagnosis.

The practical questions of importance to the profession are as follows:

1. Should or could the pregnancy have

been certainly ascertained at that period.

2. Was the proper course pursued after the mistake was discovered, and

3. If not, what under the circumstances should have been done to meet the intelligent approbation of the profession.

Perhaps some of your many readers will give their opinions on the case and also particulars of similar well-authenticated cases that may have occurred within their knowledge, omitting, of course, such cases as Prof. Byford's where an unsuspected pregnancy was discovered in a supposed virgin after having successfully removed an ovarian tumor situated in front of the uterus, and which was extensively published in the journals at the time of its occurrence.

MEDICUS.

[This recalls a case that occurred in Louisville, Ky., some years ago. The leading gynecologist of that place (who has since died) invited the students of the various colleges, several hundred in number, to witness an ovarioromy. When the students were assembled, the surgeon removed the sheet that covered the patient and showed a living child which the patient had given birth to the night previous. The ovarian (?) tumor had disappeared. A number of prominent physicians had concurred in the diagnosis of ovarian tumor. ED.]

A PERFECT PILL AT LAST.

ST. LOUIS, Sept. 27, 1888.

EDITOR REVIEW.—At the meeting of the American Medical Association in Chicago last year, I was presented a sample case of "The Upjohn Pill and Granule Co's Pills." Having been so often disappointed on the "something new" in pharmacy, I cast the case aside after returning home, and thought no more about it.

Several months ago I came across the case and concluded to investigate it. I found the pills in a perfect state of preservation and as readily crushed into a powder between the thumb and finger as they were when given to me one year previous. Having to dispense my medicines, in part, I ordered through my druggist, a pretty full line of these pills and granules, and have used them ever since with the greatest satisfaction.

The pill of this manufactuer is really a powder in pill form, with a modified sugar coating, it is readily soluble and when from the whim of the patient a pill cannot be swallowed it is converted into a powder in less time than it would take to envelop a powder in paper, thus saving time to the dispenser and furnishing an accuracy of dosage, not to be obtained by the "old method". To the physician who, whether he dispenses medicine or writes a prescription, has had the insoluble pill perhaps of several years standing returned to him "on chips" or saucer after having passed "per vias naturalis" the preparation here referred to, has only to be tried to be appreciated.

JOHN J. MILLER, M. D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Oct. 6, 1888. The President, YOUNG H. BOND, M. D., in the chair; J. B. PRICHARD, M. D., Secretary.

DR. YOUNG H. BOND.—I have here a specimen, an ovarian cyst, which was removed a few hours ago. One especially interesting feature about the case was the fact that the patient was a girl only a little more than seventeen years of age. About a year ago she came to me suffering from some pelvic disturbance, and I made an examination and felt quite sure that there existed a tumor in the pelvis, but the abdominal walls were thick, and being a virgin, the vagina was small, so that it was impossible to make a positively satisfactory diagnosis. I passed a uterine sound with a view of assisting me in reaching a diagnosis, and as a consequence I had the experience which sometimes happens in such cases: an attack of peritonitis was set up, and it persisted for several months.

I saw the case from time to time and made repeated examinations with a view of confirm-

ing my diagnosis, and I became satisfied of the existence of a tumor. About four or five months since the growth of the tumor became very rapid, the distress of the patient became great, and she insisted that I should operate upon her, so this afternoon, assisted bp Drs. Meisenbach, Dorsett and Prichard I performed a laparotomy upon the patient and discovered a large cyst containg nineteen pints of fluid. The contents of the large cyst were such as we usually find in ordinary ovarian cysts. Connected with this large cyst were a number of smaller ones that contained a colloid fluid.

Before I performed the operation, the youth of the patient, and the fact that she was said to have had an unusually large abdomen from childhood led me to believe that there existed a dermoid cyst, and that the glandular cyst had resulted as a consequence of the presence of the dermoid cyst, for I felt confident a cyst containing so much fluid could scarcely be a dermoid cyst. It is an unusual thing to find so large a collection of fluid in a girl so young. In order to determine positively whether there are any dermoid elements in the cyst it is probable that a microscopical examination will have to be made.

There were no adhesions, and the operation was a simple one; there were no complications and the amount of blood lost was insignificant; I suppose there was not more than a desertspoonful of blood lost, all told. The condition of the patient was excellent at the time of the operation: it could not have been better; the pulse was 86, I think, after the operation; less than it was at the time we commenced to operate.

Dr. D. V. Dean reported a case of goitre. The patient was 27 years of age; had had hip joint disease from early in life; she had been employed in the treasury department for some 16 years performing very laborious work, counting money —on an aveage as much as eighty thousand dollars a day and on some days many times that sum.

This goitre came on about six weeks before she came to this city; the heart-beats were 140 a minute, even when she had been at rest; there was a very distinct systolic bruit at the base of the heart on the left side near the junction of the second costal cartilage with the sternum; I could not follow it up very distinctly immediately upward, but the murmur could be heard very distinctly over the carotid artery and the abdominal aorta, and also over the crural arteries; the goitrous swellings were quite large and protruding. The eyeballs protruded, and the lids presented the appearances almost of trachoma, they were so roughened.

The sclerotics were roughened, the fan-shaped roughening showing that the lids could not be freely closed, and I think Dr. Borck saw her when she could not close the lids. Her skin was quite dark bronzed and greasy, although she had been very fair formerly. She said that the darkening of the skin eame on during a trip to New York when she persisted in remaining in the sunshine on deck of the ship although advised not to do so. This is characteristic of Basedows' or Graves' disease.

She was exceedingly nervous, and could not keep her hands still, nor her head. The plumes upon her bonnet, which were not very tall, shook-like aspen leaves.

In the treatment of the disease I used the different electrical currents, the faradic, galvanic and galvano-faradic, central general, subansally, etc., and also nerve vibration. I also put her upon iron, ergotine, and tincture of strophanthus. I do not recollect seeing the last remedy recommended for this trouble, before, though I have since seen a notice of a paper that was read before the late meeting of the Mississippi Valley Medical Association on strophanthus in this affection. I used the remedy myself on general principles. The patient left about the last of the month. I finally put her upon as much as three one-quarter grain granules, McKesson & Robbins, three to four times a day. I had formerly given the tincture, but it is disagreeable. Her pulse fell to about 82. She left the city earlier than I liked, but the heart's action was between 82 and 84, and she

was very much stronger; her spirits were better; the tumor was smaller. Of course I do not know what the result will be, especially if she resumes her work.

Dr. Bond.—How often did you use the electricity?

Dr. Dean.—Daily for three-quarters of an hour, on an average.

Dr. Bond.—Did you aim at any particular measure as to the quantity of the galvanic current?

Dr. Dean.—Usually about the goitre she would stand six to seven miliamperes without complaining at all.

Dr. McPheeters.—What was the effect of the treatment on the protrusion of the eyeballs?

Dr. Dean.—The eyes improved; the roughness entirely disappeared. She failed to menstruate during my treatment. This I attributed largely to anemia.

Dr. McPheeters.—Did the eyeballs protrude to such an extent that they could not be covered with the lids?

Dr. Dean.—Dr. Borck saw her when the eyeballs could not be covered with the lids; when I saw her they protruded so much that the lids would not follow the motion of the balls, except quite tardily.

Dr. Bond.—To what do you attribute the chief result?

Dr. Dean.—I suppose it was due to the combined treatment.

Dr. Bond.—What treatment did she have before she came here?

Dr. Dean.—As soon as she became aware of the trouble she came to her uncle, though she had consulted Dr. Condry, at Old Point Comfort.

Dr. Edward Borck.—I will say that the paper to which Dr. Dean referred was read by Dr. Brower, of Chicago before the Mississippi Valley Medical Association, on exophthalmic goitre. He had treated seven cases of the trouble, with strophanthus without anything else, beginning with two drops of the tincture and increasing it to eight drops, and all the cases got well; that was the gist of the paper.

In regard to the case Dr. Dean has reported, I will say when the patient first came here she could not close her eyelids. She looked fearful when she was asleep at night. She was extremely nervous. I think the result was admirable.

Dr. M. H. Post.—I would like to ask Dr. Borck how long this condition, in which she was unable to close her eyes, lasted and if there was any indication of disturbance of the cornea.

Dr. Edward Borck.—I only observed the patient occasionally.

Dr. Dean.—I will say that the cornea was a little cloudy, and it was very evident from the appearance of the lids that they did not close frequently. She had been advised to get glasses. The cloudiness disappeared in a short time. She was also very hoarse and could scarcely speak, although her voice was naturally clear.

Dr. Borck.—There is one interesting point which the doctor has neglected to mention: she stated that this trouble came on quite suddenly, in a short time. Now that is unusual in this trouble.

Dr. Dean.—The patient stated at first that the trouble came on suddenly, but after I had been treating her for sometime and had questioned her much, she remembered that for over a year she had been troubled with palpitation and shortness of breath when she hurried. A portion of the time she worked until 12 o'clock at night; being an expert they put her to work at irregular times when there was extra work.

Dr. Post.—Neither of the gentlemen have answered my question as to how long this condition continued—this inability to close the eyelids.

Dr. Dean.—When I first saw her they closed, but they moved very tardily.

Dr. Charles Barck.—I wish to ask Dr. Dean if he examined the nasal passages. Two or three years ago Dr. Hart, of Germany, reported two cases of exophthalmic goitre which were cured by the removal of the anterior ends of the inferior turbinated bones. These cases were reported in 1885 or 1886. Dr. Hart

stated that these cases were due to reflex action. It is known that the inferior turbinated bone; especially the anterior ends are highly sensitive organs, and he states that the cases were cured by their destruction.

Dr. Dean.—I did not examine the nares, but the patient stated that she had no nasal catarrh or nasal trouble of any kind.

Dr. McPheeters.—Many years ago, 35 or 40—before this disease was recognized or described, I reported in the St.Louis *Med.and Surg. Jour.*, a case of what I denominated hypertrophy of the eyeballs. It occurred in a nogress about 20 years old,of rather strumous diathesis, in whom the eyeballs were enormously protruded so that they stood out almost like small oranges, and the lids did not close, they were nearly three quarters of an inch apart. She also suffered acute pain, I put her on large doses of iodide of potassium and kept the eyes moistened with some bland application, keeping the eyes covered so as to exclude the light, and under this treatment she entirely recovered, though her eyes never were reduced to their original position. She lived many years after in comfort and died of some other disease. There was no syphilitic history in this case, I put her upon iodide of potassium because I did not know what else to do. In that case there was very little enlargement of the thyroid gland. The pupils were very much dilated.

Dr. I. N. Love.—Inasmuch as we have cases reported in which recoveries have resulted from the use of strophanthus would like to ask Dr. Dean to which of the remedies used by him, he attributes the cure.

Dr. Dean.—I believe it is generally acknowledged that electricity is a very valuable remedy in this trouble, and that the slowing of the heart may be produced by the electricity alone.

Dr. Bond.—Have you had any experience in the treatment of ordinary goitre with electricity?

Dr. Dean.—Yes, I have had the usual number of cases.

Dr. Bond.—With what result?

Dr. Dean.—I do not think I have ever seen a case that was cured.

Dr. Frank Fry.—I had the pleasure of hearing Dr. D. R. Brower's paper at the recent meeting of the Mississippi Valley Medical Association, and was much interested in the evidence he gave in favor of the use of strophanthus. I think the record of three cases he reported was rather remarkable. I never heard of a similarly good record from the use of any other drug or any other plan of treatment in exophthalmic goitre. I think it has generally been conceded, up to the time of this report, that electricity was the best general remedy. Undoubtedly there has been a good deal accomplished by it, and yet the effects of electricity so far as I have heard, or observed them are nothing like so striking as these effects from strophanthus. I think perhaps if Dr. Dean had heard Dr. Brower's paper, he would attribute more of the effect attained to the strophanthus. I think his case is in a considerable degree confirmatory of the experience recorded in Dr. Brower's paper, and I for one shall await with a great deal of interest the reports that will come from the use of this drug, not only in exophthalmic goitre, but in similar affections. I think there is evidence of the fact that strophanthus has a special action on the heart, that it reaches a condition of irritability of the heart, that other heart sedatives such as digitalis, etc., do not reach so effectually.

Dr. Dean.—I will say that I also sometimes applied iodide of potassium with my carbon electrodes covered with chamois skin.

I found that with the eloctrodes upon the tumor without pressure it would become very much smaller. When the pressure was marked she would speak of the protrusion of the eyes being painful. I used the current with potassium iodide until I almost produced blistering.

Dr. Fry.—I would like to ask Dr. Dean if there isa fluid extract of strophanthus?

Dr. Dean.—Not that I am aware of.

Dr. Fry.—Sometime ago I wrote several prescriptions for fluid extract. I do not

know what the destination of the prescription was, I suppose they were filled.

Dr. William Dickinson.—Before the time of strophanthus, I met with a case of exophthalmic goitre in a young woman 18 or 20 years of age, which had arisen, as those cases usually do from very strong mental excitement. In her case she had been accused of criminal relations with a man for whom she worked; a charge which I believe was entirely without foundation. In that case there was protrusion of the eyeballs, one being pro truded much more than the other, the heart complication was the source of considerable discomfort. When she came to me, the pulse was 116, but by means of galvanism I was able to reduce it to 108 and then 106, and finally to 84, and even to 76. I combined the use of digitalis and ergot internally, and also gave iodide of potassium and tonics, either in conbination or a successively. She continued under my observation several months. She had then regained her composure of mind and body. When first cousulted she could not lie upon the left side, but after a few weeks she could, and there was no abnormality of the heart's action. I saw her about a year afterwards and she seemed to be in perfect health. The globes resumed their natural position and the enlargement of the thyroid gland had disappeared, and her general health appeared in perfect condition.

Dr. J. Lord Babcock.—My experience in this disease is limited to three cases, one of which was of peculiar interest. The first was that of a young woman who attended a dispensary in New York, very faithfully for one year, and no good effect was observed to follow the treatment of the trouble with arsenic, quinine, ergot, and the digitalis.

The second case was that of a young man who came from the central part of the state of New York. He had a goitre-like swelling in the neck and some protrusion of the eyes. He said when the swelling appeared he would take a piece of blue ointment and rub over the swelling and then sit in the sun, and after doing this every day for about a week, the swelling would subside. We thought that was rather a peculiar treatment. He remained in the city a month, and we prescribed ergot and digitalis, alternating them with Fowler's solution. He finally went away saying he would try his own treatment, that he knew more abont the trouble than we did. The third case was interesting because the swelling upon one side of the neck was larger than the other, and the opposite eye protruded more than the other. It was suggested that perhaps the goitrous swelling acted as a kind of safety valve for the circulation. Whether or not there is anything in that I do not know. I never saw another case like that. This patient was subsequently taken to Bellevue Hospital, and Professor Loomis, on seeing him remarked to the class that he had seen several cases of a similar character, that is in which the swelling on one side was less than that on the other, and the opposite eye protruded more.

Dr. Bond.—In connection with the use of blue ointment by the patient referred to by Dr. Babcock, I will state that Warren in his work recommends the use of an ointment of iodide of mercury, and that the patient sit in the sunlight for an hour each day. I have used the same prescription myself with marked benefit in cases of ordinary goitre, in some cases in which the swelling was so large as to affect the respiration very decidedly. I recall one case which is suggested by the remarks of Dr. Borck, in which the respiration was very much oppressed, and I found there was a deflection of the septum, the turbinated bones were decidedly affected, and while I was treating the goitre, the patient went to Dr. Mulhall who removed a portion of the septum and straightened it. I do not know whether the good effect resulted from Dr. Mulhall's treatment or my own.

Dr. T. F. Prewitt.—So far as ordinary goitre is concerned, I have found the most beneficial effect from hydrofluoric acid. I have never treated exophthalmic goitre. I understand that some gentlemen at the Mississippi Valley Medical Association proposes to cure exophthalmic goitre with strephanthus. I must confess that I do not exactly

understand the modus operandi, but that is a minor matter if it will cure the disease. Strophanthus undoubtedly has an effect upon the heart's action; I have been very much pleased with its effect, and yet I would not surrender digitalis because I think that is a heart tonic, and is a thing which we all fall back upon; still, I think in some instances, strophanthus does better; it steadies the heart's action and improves the pulse as well as the action, by improving the tone, but there is something behind that in exophthalmic goitre. The theory that it is connected with the sympathetic nerves seem to me the most plausible one. Just how strophanthus would be indicated I do not know. Of course I can conceive that in allaying the heart's action, improving its vascular tone, it might be of service, but as a means of direct cure I do not exactly understand the rationale of the thing.

Dr. Grindon.—I would like to ask Dr. Bond what is the rationale of directing the patient to sit in the sun after applying the ointment?

Dr. Bond.—The idea did not originate with me, but I suppose it is to promote absorption.

Dr. Love.—Strophanthus is a comparatively new remedy as far as its physiological action is concerned ; there may be some hidden effect upon the brain and the sympathetic nerves. At any rate these cases were reported by an eminent gentleman, Dr. D. R. Brower, of Chicago.

Dr. Babcock.—Dr. Brower suggested that it stimulated the ganglia in the floor of the fourth ventricle, and therefore would possibly have a beneficial action on other nervous disorders, including certain forms of epilepsy, neuralgia, etc.

Dr. Bond.—Has Dr. Prewitt had any experience with the injection of iodine in goitre?

Dr. Prewitt.—Some little, Mr. President, and I think in some cases we may hope for good. I don't think it is applicable except in a certain class of cases.

Dr. Bond.—In those cases in which there is depression of respiration in consequence of pressure upon the larynx?

Dr. Prewitt.—In case we could secure a reduction of the growth it would be benefitted by it; but in a tense fibroid thyroid you could not accomplish anything. I would not treat a cystic goitre in that way.

Dr. Bond.—Is that not the treatment recommended in those cases—in cystic goitre?

Dr. Prewitt.—No, sir; I do not think so. I think it is most applicable to those cases where it is rather a hypertrophy of the glandular structure, not a dense fibroid goitre or cyst. The treatment that has been recommended for cystic goitre is the injection of the tinctura of iron producing suppuration and destruction of the cyst in that way; but in cases of simple hypertrophy of the glands we can hope to produce absorption by injection of iodine, etc.

Dr. Bond.—I was under the impression that the injection of the tincture of iodine was especially indicated in cases of cystic goitre.

Dr. Bond.—We would like to hear Dr. Dalton report some cases of laparotomy, of which he has performed a large number, with a large percentage of recoveries.

Dr. Dalton.—I about exhausted myself on that subject before the recent meeting of the Mississippi Valley Medical Association. I have only had one case since—that occurring in a negro man, aged about 35 years. Four or five days before entering the hospital he had had an intestinal obstruction, vomiting and great pain, with swelling of the abdomen. He stated that the material vomited smelled like feces; he had no fecal vomiting after he entered tho hospital. There was considerable tenderness on pressure and percussion over the abdomen; there was considerable tympanitis; he vomited a good deal and his bowels were obstructed to both gas and feces; there was some little swelling in tho inguinal region, very slight, however, and he had pain on that side more than at any other point.

I have had such ill consequences from delay in these cases that I concluded to operate

at once, which I did, and found a hernia involving one wall of the gut which was involved to the extent of about half an inch. Operating early enabled me to find the gut in a fair condition, not at all dark; it was red, inflamed and agglutinated to the ring. I drew it out, and I think I made a mistake in not sewing up the ring. There was a good deal of tympanites; the intestinal coils were quite red and considerably distended, so I had difficulty in returning them to the abdomen. The patient was in very fair condition; the pulse was about 96; his temperature about 100° before the operation. and but little higher after, so that he was in very fair condition for the operation. After the operation his pulse fell to 80; his temperature was normal in two or three hours after the operation; in fact, he seemed much better than before. Although the operation was done some five or six days ago, the bowels did not move until to-day, when they moved four or five times. The temperature is 99.5° this evening; the pulse 84, and the respiration about normal. He did not pass any flatus until yesterday. There has been some pain during the last three or four days, and he would cough once in a while, which added to his discomfort, so that I was afraid that there was an obstruction in addition to the hernia, which I had not found. I was getting anxious about the case to-day. He is now very much improved, and I think he will recover.

Dr Meisenbach.—Reitel, of Germany, has reported in the *Berliner Klinische Wockenschrift* a number of cases in which he has operated, and in all of which he states there was present a condition which he states is almost pathognomonic of obstructed gall duct. It is a tongue-like projection of the right lobe of the liver. The cases were of various kinds, some ten in all, in which he found this condition; in some cases the patients were very much run down, so that the conditions were very unfavorable for operation; in others they were favorable; in some there was just the condition that Dr. Dalton has described, the gall bladder being filled to excess; in some the gall bladder was contracted and had become fibrous where there was no indication of the site of the obstruction; in some there were gall stones, but in each and every case the condition of the patient's health was very much run down, and the cases he reports go to show that in every case there was amelioration of the symptoms and of the condition as presented at the time of the operation, and in others there was complete recovery after simply performing cholocystotomy, just as Dr. Dalton did, stitching the gall bladder to the abdominal wound, and after adhesions had taken place, incising the gall bladder, washing it out, and continuing to irrigate it until the contraction takes place. The point to which he calls especial attention in these cases is this elongation of the right lobe of the liver downward. The amount of elongation is variable in different cases; in some of them the elongation extended down to the superior spinous process of the ilium. The doctor reports ten cases in which he had excellent results.

Dr. Prewitt.—Was there a general enlargement of the liver?

Dr. Meisenbach.—A general enlargement was usually found, but this peculiarity of a tongue-like projection extending downward was especially noted, and he claims that it is almost pathognomonic of some disease about the biliary duct and bladder.

Dr. Prewitt.—I am glad that Dr. Meisenbach has referred to these cases, as it recalls a case that fell under my own observation during the last few months; a negro woman who had decided trouble-pain in this region, with great jaundice; the pains came on paroxysmally; sometimes she would go some days without pain, then she would have a violent paroxysm after eating something. On examination I found the whole liver was enlarged, and this tongue-like protection which Dr. Meisenbach has called attention to and which Reiter seems to have laid some stress upon a very marked tongue-like extention of the right lobe of the liver, under which I thought I could detect the gall bladder, with some fluctuation, which I was disposed to attribute in the first place

to some obstruction of the common duct, probably, and I thought perhaps the enlargement was due to the general damming back of the secretion of the liver; and yet it has not been my experience that enlargement of the liver is common in case of obstructed gall-bladder, still I was anxious to regard it as something of that kind rather than something more serious. The jaundice was intense, with a distressing itching that is so frequently present in these cases; there was some emaciation, but the patient's appetite was pretty fair, and she began to look to me to be too well to be suffering as much as she did and I began to waver in my diagnosis and I asked Dr. P. G. Robinson to see case with me, I had by this time commenced to think it was a malignant affection, and he thought there was no doubt of it. Dr. Gregory also saw the case and had no doubt that it was malignant. I have not seen the patient for six weeks but I understand her condition is about the same, and it seems to me that if it were a malignant growth the patient would have died before now.

Dr. Dalton.—How far down does the liver extend?

Dr. Prewitt.—Down as low as the crest of the ilium. Some two years ago I saw a patient who had been suffering for months. I had seen him a number of times during about six months. He was suffering with hepatic colic, and there was jaundice sometimes. He was a laboring man and could not afford to lay up, so something had to be done, and he begged me to operate, so I performed cholocystotomy. I found no gall stone; I tried to examine along the common duct and could not find any cause for the obstruction.

I attached the gall bladder to the walls of the abdomen and he recovered, and has been completely relieved. What the source of the obstruction was I do not know. It is barely possible of course that I may have overlooked a gall stone in the duct and that the pressure from behind of the accumulated fluid, and I will state that the gall-bladder was not very large in that case, but I thought possibly the pressure from behind being relieved the gall stone may have dropped back into the gall bladder.

I recollect a case that I saw two or three years ago in which a woman had a gall bladder as large as the crown of my hat almost; certainly I drew off nearly a quart of fluid. I aspirated in that case, although I do not consider it a very safe thing to do, and drew off something like a quart of very dark fluid, and after some little time the woman passed a number of gall stones and was relieved.

In some of these old chronic cases of obstruction of the gall bladder the fluid changes completely so that it is no longer billious matter.

Some years ago I saw an old man who had a distended gall bladder and I suggested the propriety of an operation, but he would not consent. I finally induced him to allow me to aspirate and drew off simply mucous fluid; it seemed to be the secretion of the mucous membrane of the gall-bladder. In that case the patient would not consent to an operation so of course he died.

In regard to the case of hernia raported by Dr. Dalton, I will say that I met with a very similar case some ten years ago. A man was taken with violent pain in the right inguinal region and suffered with obstruction of the bowels. I strongly suspected a hernia, the case progressed and it was sometime before I got his consent to submit to an operation. I finally opened the abdomen and found a nuckle of bowel caught in the internal abdominal ring, which could not be felt externally. I pulled it out and closed up the wound. The bowels were very much distended and peritonitis was present and the man died from the peritonitis.

Dr. W. Townsend Porter.—Dr. Prewitt stated that it might be possible that a gall-stone existed in one of his cases, which entered the cystic duct and caused enough pressure to give rise to hepatic colic and afterwards retreated into the gall-bladder. The structure of the cystic duct is somewhat valvular; its mucous membrane is arranged in folds in such a way that a body once in the duct and causing sufficient pressure to set up

the ordinary symptoms of gall-stone-colic could not by any means get back into the gall bladder. A good many of the older books mention this as likely to happen but the statement is contradicted by Harley in both editions of his work on the liver. I have recently looked up the anatomy of the cystic duct and it seems to me extremely probable that Harley's positive statement is true.

Dr. Dalton.—I have seen but three cases of enlarged gall-bladder, but my experience differs from Dr. Prewitt's. In this case the gall bladder projected downwards parallel to the median line about two inches to the right. In the first case which Dr. McCandless reported to this society some months ago;he had removed 75 or 80 small gall-stones. In that case the tumor projected directly downwards. Then in one of the cases that I reported to the Mississippi Valley Medical Association in which I performed cholocystotomy, and in which the patient died, I removed a pint and a half of fluid, by actual measurement—a white gelatinous fluid, and that gall bladder was on a level with the line drawn from one anterior superior spine of the ilium to the other, two inches below the umbilicus. In that case we made a large incision and attempted to find the obstruction, but failed.

The post-mortem revealed a constriction at about an inch and a half from the duodenum. A perfect obstruction existed there which we could not have found anti-mortem unless we could have opened up the common duct. In that case there was a good deal of oozing at the point where I tore the gall bladder from the underlying strnctures and I packed a large quantity of absorbent gauze into it, with iodoform rubbed around this point, and in attempting to remove that when I made the secondary operation, I met with considerable resistance there, so much so that I had to use considerable force in getting it out. It was pretty well filled with blood. I mopped out the cavity and left in a rubber drainage tube for two or three days.

In this last case of laparotomy I forgot to state the incision was from the umbilicus to the public bone; there was a great deal of discharge in the abdominal cavity—sero-sanguinious. I left the drainage tube in and dressed it. In three or four hours the dressing was quite wet with the secretion, and twice a day I have been removing the fluid from that tumor with an ordinary hard-rubber syringe and there has been a very large amount of secretion from it until to-day, when I got only a half teaspoonful and I concluded to take out the drainage tube as it was causing a great deal of discomfort. When I took it out the opening was patulous and I took out as much secretion as possible with absorbent gauze.

McDOWELL MEDCIAL SOCIETY.

The Twenty-eight Semi-Annuul Meeting will be held at Henderson, Ky., November 1 and 2, 1888.

E. H. Luckett, President; W. F. Stirman, Vice President; J. B. Rodman, Secretary.

Morning Session, 10 a. m., Thurday, November 1.

1.—Report of Secretary.

2.—Report of Committee on Arrangements.

3.—Report of Special Committees.

Special Committees.

1. Popular Errors Concerning the Insane. —B. F. Eager, Hopkinsville, Ky.

2. Diseases of Children.—J. N. Powell, Corydon, Ky.

3. One of the Disadvantages of Antiseptics.—Edwin Walker, Evansville, Ind.

4. Granulated Lids.—Wm. Cheatham, Louisville, Ky.

Afternoon Session, 2 p. m.,

1. Cases in Surgery, Ap. Morgan Vance, Louisville, Ky.

2. Infantile Convulsions.—I. N. Love, St. Louis, Mo.

3. Improvements in Surgery.—W. L. Stirman, Owensboro, Ky.

4. Purulent Ophthalmia.—S. G. Dabney, Louisville, Ky.

5. Pseudo Membranous Laryngitis.—J. C. Hoover, Pleasant Ridge, Ky.

6. Fecal Impaction.—J. M. Mathews, Louisville, Ky.

7. Villous Tumors of the Rectum.—George J. Cook, Indianapolis, Ind.

8. Report of Cases.—W. O. Roberts, Louisville, Ky.

9. Ophthalmia Neonatorum.—D. A. Thompson, Indianapolis, Ind.

10. Insoluble Injections in the treatment of Syphilis.—I. N. Bloom, Louisville, Ky.

SECOND DAY, NOV. 2, 9, A. M.

1. Treatment of Typhoid Fever.—C. H. Todd, Owensboro, Ky.

2. Dysentery.—W. S. Gilmore, Soghotown, Ky.

3. New Remedies.—W. T. Ellis, Masonville, Ky.

4. A Case of Resection of the Ankle.—A. M. Owens, Evansville, Ind.

5. Differential Diagnosis between Malarial and Enteric Eever.—S. C. Smith, Henderson, Ky.

6. Report of Cases in Practice.—J. Hale, Owensboro, Ky.

7. Otitis Media.—J. E. Johnson, Waverly, Ky.

8. Effects of High Temperature.—W. E. Fowlkes, Calhoon, Ky.

9. After Coming Head, Use of Forceps in.—J. P. Thomas, Penbroke, Ky.

10. Opium Poisoning—Report of a Case.—L. C. Royster, Smith Mills, Ky.

AFTERNOON SESSION, 2 P. M.

1. Diseases of Women.—J. T. Jenkins, Uniontown, Ky.

2. Diphtheria.—J. P. Hasrin, Hawesville, Ky.

3. Scarlet Fever.—J. F. Roscoe, Caladonia, Ky.

4. Diagnosis of Intestinal Obstruction by the Rectal Insufflation or Hydrogen Gas.—John Young, Brown and Arch Dixon, Henderson, Ky.

Dr. Cheatham will do an operation for Strabismus, and there will probably be an operation for Cataract, by Dr. Dabney.

A reception will be tendered the Society on Thursday night, tickets for which will be distributed Thursday morning.

The Committee of Arrangements will do all in their power to make this meeting not only profitable, but entertaining, every reputable physician in the Second Congressional District is cordially invited to attend and bring his wife and daughters.

JOHN YOUNG BROWN,
P. H. GRIFFIN,
S. C. SMITH,
Committee of Arrrangements.

A. M. A.—SECTION ON DISEASES OF CHILDREN.

John A. Larrabee, M. D., President, 1823 Baxter Avenue, Louisville Ky.; Chas. G. Jennings, M. D. Secretary, 544 Jefferson Avenue, Detroit Mich.

LOUISVILLE, KY., Oct. 10, 1888.

DEAR DOCTOR.—At the thirty-ninth Session of the American Medidal Association, held in Cincinnati, Ohio, the Section on Diseases of Children attracted more than the usual amount of attention. The meetings were largely attended, the papers presented were of interest to the general practitioner and the discussions, often spirited, enabled the members to give personal experiences, e. g., The discussion upon "infant feeding." which occupied the first day. To remind you of the importance of the section upon pediatrics would be supererogatory. To consolidate such a section of practice under the head of "midwifery" would be a step backward, entirely unwarranted, and it becomes all members interested in this great and uncultivated field of practice to sustain at Newport, the high position attained at Cincinnati. I feel at liberty to call directly upon you for the title of your contribution to our section in season. It is a matter of regret that discussions, often of more value than the paper discussed, have been omitted from the transactions. An effort will be made to secure for our section one or more stenographic reporters. In conclusion permit me to suggest that whatever subject you may honor with your pen, that you may bring to it your original thought and experience, as we need more original papers.

Hoping that you will not delay but give this your immediate attention, I remain most sincerly, Yours truly,

J. A. LARRABEE.

SELECTIONS.

DR. CARTER'S BRADSHAWE LECTURE ON UREMIA.

We congratulate Dr. Carter upon his choice of subject for the Bradshawe Lecture of this year, and upon the concise review and criticism he offered his audience of the state of our knowledge concerning the pathology of uremia, and of the theories advanced to connect its pathology with the clinical facts. To those who watch the progress of medical research it must during recent years have been evident that the study of pathological anatomy was rapidly ceasing to yield results which could be considered a sufficient recompense for the labor bestowed upon it. Observers have been reduced to a description of the curiosities of disease, or of minutiæ only to be discovered by high powers of the microscope and after infinite pains of preparation. Of course such researches have their value, still most will prefer a more open field of discovery, and hence we see growing yearly a desire to investigate functional pathology, of which pathological chemistry forms one of the most important, and possibly one of the ultimate divisions. While something may still be claimed for the significance of the anatomy of uremia, it has long been suspected that the clinical picture, designated by that name, was produced essentially by a chemical poisoning, the nature of which, as the uumber of the theories concerning it proves, was not yet known. Those who heard Dr. Carter's lecture, or who will read the account of it which we publish, will appreciate the strides made during the last few years in the investigation of the chemistry of uremia. The narrower ideas of its pathology, the theories of ammonemia, creatinemia, urinemia, and the rest, are seen to be no longer consistent with either clinical or chemical facts, and give place to broader views, which, if still lacking in precision, do not hide our ignorance under the cloak of a name.

Dr. Carter, as will be seen, has carefuly digested the recent work of the French rather than of the German school, and, while giving a clear exposition of our scientific position, adds certain observations of his own, which are not the least interesting points in his lecture. He is not inclined to support Traube's theory that the nervous phenomena of uremia are due to edema, and consequent anemia, of the nervous centres. The theory was mainly called forth by an anatomical fact that, in some cases of death from uremia, the brain was seen to be pale and apparently watery. Such a change is often, but not always, seen; and as Dr. Carter, agreeing with Voit and others, has determined, the brains of persons who have died after suffering from uremic symptoms may not show any excess of fluid. Dr. Carter found this to be the case in two instances, although we note that, in the record given, it is not asserted that the brain showed the naked-eye appearance described by Traube. We think that Traube's change may be of more importance than the chemical pathologists are inclined to admit, and yet, if viewed in its proper light, may not be antagonistic to their views. We ourselves are of opinion that the old term "serous apoplexy" should not be so generally rejected as has been the case, until, at any rate, the pathology of the condition which this term describes is more fully understood. Not uncommonly cases are met with where hemiplegia, sometimes succeeded by coma, appears in a patient who is the subject of high arterial tension, with or without other evidence of renal disease. The condition may pass away often with remarkable rapidity, or death may ensue, and nothing be found in the brain but excess of fluid in the ventricles and bathing the membranes. This may fairly be called a serous apoplexy, whatever may be the method of its production, and it is probably expressive of a disorder of the cerebral circulation. Traube's change appears to us to be of similar nature, and viewed in the same light, not as

the actual cause of the symptoms, but as produced by the vascular change which simultaneously calls forth the symptoms, it should not be excluded from consideration. Such symptoms as we have mentioned (known sometimes, when renal disease is discovered, as uremic hemiplegia) are more readily explicable by the supposition of a vascular disorder than by direct poisoning of the nervous tissues. Wagner, in the article which took the place of that of Bartels in the more recent edition of Ziemssen's *Cyclopedia*, considered that the condition was due to capillary hemorrhages, which are often found in the brain in such a case. But these, like the serous effusion, may be produced by the vascular change, and this, we believe, is the cause of the symptoms.

But it will be seen that the admission of this version of Traube's theory, as an explanation of certain cases, leads us not much further toward the ultimate pathology of uremia. Even if admitted for a limited number of cases, the vascular disorder must have a cause, most probably a chemical poison in the blood, which acts upon the vasomotor centre or by an unknown mechanism varies the capillary resistance. Thus may be produced a few of the nervous, and possibly the respiratory, symptoms. But, as Dr. Carter clearly shows, the phenomena of uremia are protean, convulsive as well as paralytic, gastric as well as nervous, and may affect but limited portions as well as the whole of the body. Here it seems reasonable to suppose that the chemical poison is acting directly upon the tissues without the medium of vascular change, and further, the complexity of symptoms is readily explained if the existence of more than one poison be inferred. We commend to our readers the able review of the French work upon this subject, given by Dr. Carter. Although the researches of Bouchard are wanting in the chemical niceties and accuracy displayed by those of Brieger, they are nevertheless very suggestive, and have already greatly extended our knowledge of the various poisons which may affect the body, and are self-engendered by the system. One of the most important of his observations is, to our mind, that of the variability in the nature of the urine poison at different times of the day. The kidneys, as we know, eliminate a certain portion of the excrement of the body. Some of the substances thus removed can only be eliminated by the kidneys when presented to them in a certain form. We can thus see how, even with healthy kidneys, a toxemia may be produced if other organs concerned in tissue metamorphosis be not performing their functions accurately. This seems to be the inference we must draw from the fact that not only the quantity bnt the nature of the urine poison varies.

Moreover—and this as will be seen, Dr. Carter insists upon—from clinical considerations it must be inferred that the condition usually called uremia is but the renal form of a toxemia which is present with similar though somewhat different characters in other conditions. In fevers, in affections of the liver, in suppression of urine, in obstruction of the uterus, we find symptoms which, though differing greatly, are nevertheless allied to each other. The condition, by whatever name it be called, is produced by the presence in the circulation of matters which should be removed, or which assume a form or attain an amount with which the system is unable to cope. The proof, by Bouchard, of the varying nature of the renal excrement affords an explanation of the differences observed in the clinical observations. It may be added that recent researches by Brown-Séquard and Wurtz have shown that a multiplicity of symptoms may be artificially produced by the poisoning of animals with alkaloidal matters eliminated by the lungs. The case described by Dr. Carter, where the the exhalations from the dead body appeared to be of so very poisonous a nature, is extremely interesting, and strongly bears out his opinion that a chemical poison was at work. In ordinary medical practice it is rarely possible to make a minute chemical examination just at the time when an importadt case is under observation, but it would still further have increased the interest of

this case had a complete analysis been made of the colored layer of the urine, and of the other fluids of the body.

The basis of all rational treatment must be a thorough knowledge of the nature of disease, and it will be seen that Dr. Carter does not neglect to show how the facts he records, even in their as yet incomplete form, may be made use of by the physician in medical practice. The sources of some of the poisons of uremia may be removed, other organs may assist in elimination when the kidneys are disabled, and pure blood may be substituted for that which is impure. It would appear not improbable, that the liver, or some such organ, may have the power of breaking up the poisonous combinations into others of less toxicity. Possibly it is by stimulating the circulation through the other internal organs that some of our therapeutic remedies relieve the symptoms of renal toxemia.

IN MEMORIAM.

The following resolutions were passed by the Alumni Association of the St. Louis Medical College.

Whereas, we have lost by death one of our number, Dr. L. Loisel Papin,

Be it resolved, That the Alumni Association of the St.Louis Med.College hereby express the sorrow of its members in the loss of one of our youngest, most promising and pleasing of their number.

Be it further resolved, That the Association extend its deepest sympathy to the relatives of the departed.

Be it further resolved, That the above form a part of the records of the Association, also that a copy be furnished the medical press for publication.

[Signed.] Greenfield Sluder.
G. S. Miller
M. C. Murray.
St. Louis, Sept. 8, 1888.

Whereas, The invisible hand of death has again fallen upon us and borne from our midst a comrade, one whose brief but brilliant career was full of accomplishments and an earnest of greater success in the future; one whose graces of character had won our esteem, whose brilliancy of intellect compelled our admiration, our friend and fellow Alumni, Benjamin J. Primm, and, whereas, we desire to express our sorrow at his loss and our sympathy with his family in their bereavement.

Therefore be it resolved, That in him our profession mourns an earnest, successful worker, whose example was its pride; That this Association has lost a valued and efficient member, and that personally we have lost a friend to whom we could ever turn with confidence for counsel or encouragement.

Resolved, That we extend our heartfelt sympathy to his family, the shadow of whose sorrow has fallen on us also.

Resolved, That these resolutions be spread upon the records of this Association, that a copy of them be sent to the family of the deceased and that they be printed in the medical press.

J. B. Shapleigh.
J. Friedman.
Geo. Homan.
Committee.

St. Louis, Sept. 8, 1888.

Dr. Schurey, of Germany, reports a case of anterio sclerosis with attack of angina pectoris and insomnia, in a patient sixty-one years of age. The ingestion of thirty grains of sulphonal was followed by a rapid recurrence of the attacks of angina which continued for two days with increased violence and frequency.

Treatment of Burns. — Wende speaks very highly of a dressing for burns, composed of cocaine, four per cent, and lanolin. This mixture should be freshly prepared, and the cocaine perfectly pure. It assuages pain immediately and the healing takes place rapidly.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 17. ST. LOUIS, OCTOBER 27, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

GYNECOLOGY.

BY YOUNG H. BOND, M. D.

I. DYSMENORRHEA, RAPID DILATATION OF THE CERVIX.—*Arch. Gyn. and Pediatrics.*

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DYSMENORRHEA, RAPID DILATATION OF THE CERVIX.

For the benefit of those who have not had practical experience with rapid dilatation of the cervix in dealing with certain pathological conditions of the uterus, as well as for the enlightenment of those "doubting members," who suffer preconceived theories to bias and control their line of practice as regards this measure, even at the risk of making the subject hackneyed to the readers of the REVIEW, I produce the following from our honored countryman, Dr. Wm. Goodell, whose experience upon this subject is so in accord with my own, that I cannot too highly commend the wisdom of his observations. We take the following from *Col. and Clin. Record.* "The patient is twenty-five years of age. Puberty began at fourteen, and ever since she has had severe and obstinate dysmenorrhea. She comes to us now not so much for the pain during menstruation as for pain produced by coition, a condition to which we apply the term dyspareunia. When a woman who has never borne children complains of dysmenorrhea, the cause in the great majority of cases is anteflexion. The natural condition of the womb, as you know, is anteflexion. Retroversion and retroflexion, on the other hand, are usually the result of lack of involution after labor. The uterus is too heavy and falls backward, and we have, according to the degree of plasticity of the organ, retroversion or retroflexion. If the organ is easily bent, we have a flexion, but if the tissue is firm and the ligaments somewhat relaxed, there will be retroversion. As I have told you, this patient has had dysmenorrhea since puberty, but since her marriage, three years ago, the pain has become much worse. The fact of painful menstruations indicates that she has one or two conditions or possibly both of them. There is either an exaggerated anteflexion or stenosis of the cervical canal or both. If the bend in the neck of the womb is great, no fluid can escape. The blood collects in the cavity of the womb, distending it, and at last the canal is straightened and the fluid escapes with a gush. Sometimes the occurrence of this sudden escape of blood is not recognized by the patient, but on close inquiry she will tell you that the pain goes on increasing until it reaches its acme, when there will be a sudden diminution in its intensity, when it will again gradually increase. There is often some difficulty in deciding whether or not a patient has stenosis by angulation, for during the intermenstrual period the sound may readily pass, but at the time of the period

the mucous membrane becomes swollen and the canal is occluded. In married women who do not become pregnant there are superadded the congestions from coition. The accumulation of fluid in the cavity in the uterus at the menstrual periods leads to hypertrophy of the uterine muscle, so that we have the monthly congestions and the engorgements from coition acting on an organ already enlarged. As a result we have a subacute form of endometritis, and the ovaries also become congested and tender. The cervix, which ordinarily is very insensitive, will at times become the seat of exquisite sensibility. This, in my experience, is most frequently seen in those who are employing preventive measures to avoid conception. This woman is anxious to have children, and it is evident that her condition is not the result of any evil practice.

Anteflexion of itself calls for no treatment, but when it causes dysmenorrhea, and when the pain is not due to irritability of the womb, the anteflexion should be relieved.

The patient has now been placed thoroughly under the influence of ether. There is a decided anteflexion, and the sound gives a measurement of three inches. The best method for the treatment of this condition is dilatation. This is much better than the cutting operation, which consists in slitting up the posterior lip of the cervix to the vaginal junction and then introducing a knife within the canal and cutting the little spur of tissue that remains. This is not so successful as dilatation, and is far more dangerous. Many lives have been sacrificed by the bloody operation, as it has been termed. I have performed the operation of dilatation in three hundred and seventeen cases, and have never had any alarming symptoms. In a few instances there has been a slight metritis with some involvement of the peri-uterine peritoneum.

I shall now proceed to the performance of the operation in this case. We employ thorough antisepsis throughout the operation. The vagina is first cleansed with a 1:1000 solution of corrosive sublimate. After introducing a speculum, I catch the cervix with a tenaculum and hold it while I introduce Ellinger's dilator, and then reverse it. This readily passes. When it does not enter at first, introduce it at first as far as it will go, and separate the blades. Then close it and introduce it a little further, and in this way you can soon tunnel your way through the canal. Care should be taken to see that there are shoulders on the dilator to prevent it from entering too deeply into the cavity of the womb. The shoulders should be two inches from the extremity of the instrument, and there should be at least half an inch between the ends of the dilator and the fundus of the womb. If the blades were in contact with the fundus of the womb, they would be liable to tear the tissues as they were opened and cause serious results. Having the dilator properly introduced, I gradually separate the blades, not using too much force at once. I have torn the cervix while dilating. The tear did not give any trouble, but there was a certain amount of hemorrhage. This was controlled by the application of Monsel's solution and the introduction of a tampon.

I have now dilated as far as may be done with this instrument. I next employ a much more powerful dilator, the blades of which have no tendency to feather. Having slowly dilated to one inch and a quarter, I remove the ether, and allow the instrument to remain until the patient begins to show that she feels it. Before the beginning of this operation I always direct that an opium suppository be introduced into the rectum, so that it will have begun to act by the time that the effect of the anesthetic has passed off. Before removing the dilator, the vagina is again thoroughly cleansed with the corrosive sublimate solution, and some of it is allowed to enter the cavity of the uterus. This is perfectly safe when the os is in this patulous condition. The dilator is now withdrawn and a ten grain suppository of iodoform is slipped into the vagina.

I can confidently recommend this operation to you in such cases as this. Occasionally it is necessary to repeat the dilation, but one

operation almost always gives decided, if not complete, relief.

INTRALIGAMENTOUS TUBAL PREGNANCY.

While medical journals of the present day are teeming with reports of operations performed for the relief of tubal pregnancy, they most all bear a close resemblance in the narrative, indicating the similarity of conditions that usually obtains under such circnmstances.

A striking exception to the above is to be found in the most rare, if not unique experience of Dr. Jos. Eastman, of Indianapolis, as is evidenced by the following from the *Amer. Jour. of Obstet.*

Mrs: C., æt. 39, bore one child 19 years ago. Suffered from frequent paroxysms of intense pain and rapidly increasing abdominal enlargement since her flow stopped last Christmas.

She was admitted to my private hospital on July 9; operation July 10.

Abdominal inspection and palpation showed tumor extending from near pubes upward and to the right, reaching near the liver. Conjoined manipulation disclosed uterus normal in size, well up between tumor and symphysis pubis. There was not less than three inches of fat between integument and tumor. I failed to detect sound of fetal heart. Breasts not enlarged. Very little discoloration around the nipple.

Abdominal section revealed extra-uterine pregnancy, tubal variety.

The tube seemed to have much of the right broad ligament surrounding its uterine attachment, as if the tube had been originally beneath the peritoneal fold of the broad ligament.

The sac containing the child was a dark purple and tore open easily on the touch of small forceps.

Placenta was nearly under line of abdominal incision, yet I was unable to open sac and extract child without detaching much of its tissue.

Any manipulation of the placenta caused hemorrhage. I determined at once to remove tube and placenta in mass, and began by separating an adherent intestine and then an adherent omentum, being compelled to use pressure forceps and ligate five times before I reached and surrounded the tube with my fingers.

By this time there was free hemorrhage from the margins of the placenta and tube.

I applied Eastman's clamp below my fingers around the neck of the sac, and found by this means I could so constrict as to arrest all bleeding; then cut off above the the clamp, and using No. 14 iron-dyed silk, qnilted the pedicle (which the clamp had made for me) with cobbler's stitch.

I washed out the peritoneal cavity with pure water (temperature 105°) three times, put in glass drainage tube, and closed wound with silk-worm gut, and found to my great satisfaction that the patient had suffered little shock. Her highest temperature was 102°.

Bowels moved on the third day and drainage tube was removed on the fifth day. She is now surely convalescent, with normal pulse and temperature.

The child is well and growing as nicely as any infant I have seen. I am under lasting obligations to Dr. W. A. Patterson and my faithful nurses, the Misses Prough (sisters), for their efficient assistance in the operation; also to Dr J. F. Barnhill, for his skilful administration of ether. There were no others present at the operation, as "in a multitude of counsel, there is safety to the counsellors, but not to the counselled." Drs. Todd, Waterman and Elder, of this city, in addition to those present at the operation, examined the tube and child; all concurred in the belief that the child was eight months and that the tube had not ruptured."

There are, of course, special conditions which justify and even render imperative efforts at removal of all the appendages in advanced tubal or abdominal pregnancy, when the child has become almost or quite viable, but that such a rule of practice will be contended for by any one I scarcely believe, and

the fortunate experience of Dr. E., as recounted above, must be attributed to most exceptional conditions, since uncontrolable and fatal hemorrhage would be liable to ensue were such a course uniformly pursued.

One Child Sterility.

The following is taken from *Arch. Gyn.*

"Out of 1081 gynecological cases Dr. Kilenwachter, in *Lond. Med. Rec.*, noted 90 where the parents had borne one child at a more or less distant period, and had remained sterile since, although still cohabiting with their husbands. In 21 of the cases the single pregnancy had ended before term.

He divided the causes of this kind of barrenness into 10 groups:

1. Sequelæ of inflammatory processes beginning during the puerperium. 2. Catarrhal endometritis. 3. Sequelæ of inflammatory processes traced to a non-puerperal origin.

4. Displacements of the uterus. 5. New growths in the uterus. 6. Constitutional sources of sterility established after the first pregnancy. 7. Impaired potency of the husband. 8. Excessive involution or atrophy of the uterus. 9. New growths in the ovary. 10. Uncertain or unknown causes.

These groups are arranged in the order of frequency. Forty-three were traced to uterine and extra-uterine pelvic inflammations, that is, to the first three groups; 19 to displacements and tumors.

Dr. Kilenwachter admitted that the causes grouped above as 2 and 4 were not proved in every case to be uncomplicated. He declared that the seven cases making up group 7 were well authenticated by the clinical history, the condition in question appearing to act in a positively deleterious manner on the genital apparatus of the woman. Under group 6 were included cases where anemia, cachexia, obesity, or emaciation arose after the first pregnancy."

[The number of causes here enumerated as producing sterility, illustrates the necessity under which we lie of making a critical study of each and every case of sterility, for the relief of which we are consulted. The effort of the writer to reach an approximate estimate of the relative frequency of the various causes obtaining in a given number of cases is highly commendable, since any established fact usually admits of further prevision, and thus we move onward to the attainment of our purpose, a riper knowledge of disease.]

Electrolysis in Some Chronic Uterine Affections.

The *Brit. Med. Jour.*, contains some practical observations upon the above subject from the pen of Dr. R. A. Gibbons. The theme is a popular one at the present time, as the subject of electricity in gynecology may be considered the lesson of the day, to the mastery of which many of the best minds are bent.

He relates cases which had been under his care, as in patients at the hospital of chronic metritis, endocervicitis, lupus minimus, caruncle of the urethra, and cancer of the uterus. The latter were accompanied by profuse hemorrhage, and were mentioned in order to call attention to the efficacy of electricity in arresting bleeding. After explaining the action of each pole on the tissues, the author dwelt upon the advantages derived from the use of the negative pole as a caustic in chronic inflammatory condition of the body and neck of the uterus. The glairy discharge, so common in this class of affections, became electrolyzed, and thus the lining membrane could be acted upon directly and thoroughly. The accuracy with which the application of electrolysis could be made was greater than of any caustic. During manipulation the operator had no difficulty in keeping the electrolytic power under his perfect control. After giving technical details he dwelt on the necessity of a reliable galvanometer. This method of employing electrolysis had never been described in any English work.

Uterine Diseases Treated by Heat and Cold.

It has become so fashionable of late to re-

port such affections of the female sexual organs only, as are amenable to operative measures, that such gross conditions might be supposed to obtain to a most preponderating extent over the non-operable class of diseases to which that system is liable. Yet no one engaged in extensive gynecological practice will admit that such is the case, hence, it seems well to devote more attention to those inscrutable, intangible, and yet not less real troubles having their existence in neuropathic state of the system.

The subjoined article taken from *Annals Gynecol.*, Sept. No. 1888, whilst not subscribed to in all particulars, contains so much that is good in the direction indicated that I reproduc it in full.

Uterine Diseases Treated by Heat and Cold over the Spinal Cord, and Sympathetic Ganglia.

Dr. Kinnear, of Boston, says: In the preface to his "Functional Diseases of Woman," Dr. John Chapman says: "It is probable that the more the diseases and functional derangement of animals having a nervons system are investigated, the more they will be found to originate primarily in altered conditions of that system."

The cases he reports in this work, he further says, "constitute a remarkable proof that the circulation of the blood in the womb is subject to the controlling influence of the sympathetic nervous system; that the so-called functional diseases of that viscus are, in reality, abnormal conditions of the nervous ganglia which control it; and that these diseases are most safely, most easily, and most effectually remedied by acting, not on the womb itself, not by medicines presumed directly to influence it, but by decreasing or increasing the quantity of blood in those nervous centres, by which its blood-vessels are governed."

In my former articles I have endeavored to prove, by illustrative cases, as well as by preliminary papers, that heat and cold applied over the spine and sympathetic ganglia enable us to contract blood-vessels in the case of heat over tbe sympathetics, to dilate them when cold is applied; in e regions supplied by the sympathetic ganglia, over which the applications are made, I have distinctly and rapidly, in hyperemias, hemorrhages, and inflammations, contracted the arterioles, and relieved the patient by heat over the sympathetic masses supplying nerves to the arterial coats, on the affected region.

In several cases of menorrhagia heat over the dorso-lumbar region has quickly checked the excess of the flow.

In many patients afflicted in this way the severe and exhausting flow does not take place until the end of the second or the beginning of the third day; consequently, as it is not desirable for many reasons to do more than restore normal menstruation, the hot-water bag is not used until excessive loss of blood is to be prevented.

It is then filled with water from 115° to 120° Fahr., and constantly applied until the discharge lessens. It is now removed and reapplied if the effect of the first use is only temporary.

The bag must be refilled every hour with water of the above mentioned temperature, if a good and efficient result is not achieved during the first hour.

In one patient suffering with a sudden and exhausting attack of metrorrhagia. the violence of the hemorrhage was checked in a few minutes, and ceased almost entirely in an hour. Patients who are relieved in this way express themselves as delighted with the soothing effects experienced. The aching in the back is quickly allayed; the weary sensations vanish, and the sufferer falls into a refreshing sleep.

In a recent letter received from Dr. Chapman, he concisely reports a case of cancer of the bladder, interesting in this connection. He says: "The late Dr. Mallez, eminent in France in connection with the pathology and treatment of genito-urinary diseases, had a case of cancer of the bladder, attended with the most troublesome and uncontrollable hemorrhage; he had two doctors in consulta-

tion with him on the case. They were all puzzled what to do, and at length one of them, who knew me personally, suggested the question whether Dr. Chapman's system could be applied; but they knew nothing of that method, and, therefore, were ignorant whether cold or heat should be applied in the case before them. One of them was deputed to come and obtain instructions from me. I told them heat must be used, and how to use it; the result was, the hemorrhage was rapidly arrested." In many cases of nasal hemorrhage I have quickly checked the bleeding by heat over the cervico-dorsal region, and in one very serious case of a young girl, it was stopped in less than three minutes.

There seems to me no doubt that hemorrhage from any part of the body may be speedily overcome by heat over the sympathetic ganglia controlling the bleeding vessels, unless they are of large calibre. In those leg amputations where there is capillary hemorrhage or oozing I have no doubt that heat used over the lumbar region on the corresponding side to the amputation will quickly cause its cessation.

In post-partum hemorrhage I believe that heat on the lumbar sympathetic ganglia will contract the uterine vessels, but, if also placed across the spinal cord, will, by attracting a surplus of blood into the motor cells of the cord controlling the womb, induce strong contraction of the uterus by the stronger nervous currents issued to its muscular fibres by way of the motor nerves. Is it not natural to think that the contraction of blood vessels in the womb, or elsewhere, will be less hurtful, as well as more agreeable, to the patient, if such effect may be performed by restoring the normal or physiological action of central nervous tissue controlling the arterial muscular coats, than by applying cold, heat, or astringents locally, or giving an internal remedy like ergot, which, in an exhausted patient, has a further depressing effect upon the whole organism ?

There is another way in which post-partum hemorrhage may be checked by the use of Dr. Chapman's system, and it is beautifully illustrated is a case related to me.

The hemorrhage was of great severity; all the usual remedies had failed; the patient was pulseless at the wrist; the face deathly pale, and speedy dissolution was imminent. A Chapman dorso-lumbar ice-bag was filled with small cracked ice, and placed upon the cervico-dorsal region with an immediate return of color to the lips and face, of consciousness, a restoration of the radial pulse-beat, and a cessation of the hemorrhage.

The patient recovered. The rationale of treatment was to quickly induce anemia in the sympathetic ganglia of the neck and upper dorsal region. By so doing the contracted blood vessels in the upper body became relaxed, and the small amount of blood left to the patient at once circulated through the brain and upper body, relieving the tension upon the relaxed blood vessels in the uterus, allowing them to contract, and thus checking the hemorrhage.

I have treated successfully one case of tendency to abortion at the third month.

This patient, eighteen months previously, had miscarried at six months and a half, while suffering from rheumatism. Becoming pregnant again, everything progressed favorably until the third month, when she was attacked by labor pains and a sense of weight in the uterus. The abdomen above the womb was also quite hot. The pains were frequent, and the patient was very nervous and uneasy. A double-columned hot-water bag was applied over the dorso-lumbar region, and the patient put to bed. In fifteen minutes she expressed herself as more than comfortable. The bag was removed at the end of an hour and a half; it was renewed in four hours, and so continued for the following day. The second day the pains, heat, and weight had entirely disappeared, and the bag was used on the third only twice. The patient was then allowed to rise, and had no further trouble through the whole period of gestation, taking plenty of quiet exercise, and enjoying life.

Phlegmasia Dolens.—I have treated one case of this terrible disease successfully, by heat used only over the left lumbar region,

the left leg being affected. When first called to the case, the leg was swelling very rapidly; it was exceedingly hot, very tender to pressure, and the patient was in intense pain. It was the sixteenth day after delivery. I was puzzled as to which application I should make over the lumbar region, and determined to try ice. In less than half an hour the pain became agonizing; so, removing the cold I applied hot water instead. In less than an hour the whole leg had become cool, and the agonizing pain was reduced to a dull ache. The leg ceased swelling, and the patient fell asleep. Heat was used as above, four hours per day for four days, one hour and a half at a time, and in two weeks the patient, though slightly lame, was walking about. The leg was bandaged twice daily, and during this fortnight steadily decreased in size until it arrived within half an inch of the circumference of the sound limb. This enlargement almost entirely disappeared during the year following. In milk fever, with rapid and painful enlargement of the mamma, heat between the shoulders gives ready and speedy relief. It should be used for half an hour at a time, four or five times a day, until permanent relief is afforded.

In two cases in which I have used the application, both patients expressed the sensation as "delightfully comforting." I have had no opportunity to test the application, but I believe with Dr. Chapman, that when there is a deficiency of milk, unless the mother is exceedingly feeble, cold over the dorsal region will dilate the blood-vessels in the mammary glands, and so increase their function.

In a case of typhlitis, and two others of general peritonitis, heat over the dorso-lumbar region lowered the temperature speedily, relieved the pain, and through its contraction of the dilated peritoneal blood-vessels caused a general distribution of blood through the whole peripheral circulation. In all of the patients treated the hands and feet, which had been cold in spite of the general high temperature, became speedily warm, and the pulse at the wrist, which had been thready and rapid, became full and less frequent. In one patient who had already been suffering for thirty-six hours great pain, with no apparent relief from large doses of morphia, the ease to the pain begun in five minutes; and in fifteen minutes she fell asleep. Next morning the temperature was normal, and there was complete relief from pain. In endometritis, metritis, and perimetritis, if the hot-water bag of Dr. Chapman is used over the dorso-lumbar region, it seems probable that it will abort these attacks in the majority of cases, if applied before consolidation of the effusion takes place, that it will prevent spreading of the inflammation, or the formation of an abscess, even then.

The best effects, of course, will result the earlier in the attack the remedy is used. In pneumonia, acute bronchitis, acute layrngitis in the adult, and in pleurisy I have speedily lowered the temperature and subdued the inflammation by heat over the dorsal and cervico-dorsal region. Thus the hot-water bag of Dr. Chapman, properly applied over sympathetic ganglia, will in many cases control, and in others check, the spread of inflammations. If bacteria be the cause of inflammations, how is it possible to destroy a poison, if that poison be in the blood, by simply contracting arterioles?

The Ice-Bag in Uterine Diseases.

In young women suffering from dysmenorrhea, accompanied by great pain during the first day or through the whole period, a darso-lumbar ice-bag worn for an hour twice a day during the first day, or three or four hours a day if there is a very scanty flow, continuing through the menstruation, will often give quick relief to the pain, and increase the amount to a normal discharge.

In the spring of 1882, I was called to Miss M., 18 years of age. The period was beginning, as usual, with great pain, both in the region of the uterus and also in the lumbar region of the spine, shooting upward through the dorsal region. The patient was making a great outcry, the feet and hands were cold, and the face much flushed.

Instead of morphia, which I was requested to use hypodermically, a dorso-lumbar ice-

bag was placed over the darso-lumbar region. In a few minutes the cries ceased, and the face began to lose its flush. In about forty minutes the feet and hands were quite warm, while the patient expressed herself as "perfectly comfortable." She fell asleep, and after several hours' nap woke with a fair flow, and entirely free from pain. She suffered no more during this period.

In previous menstruations the pain had not spent its force for twelve or twenty-four hours.

In a number of cases suffering from dysmenorrhea the dorsal-lumbar ice-bag, used an hour or two per day between the periods, has entirely overcome the trouble.

I have treated successfully two cases of prolapsus uteri by cold over the dorso-lumbar region. In the first case, that of a woman of 28 years of age, the trouble was wholly relieved in three months. The patient had worn pessaries without benefit for two years, and had been under a variety of treatment for eight years previous to consulting me. She could not walk more than a half a mile without a falling of the womb to the labia, accompanied by intense bearing-down and dragging pain. Three weeks after treatment she walked nearly two miles without pain or effort, and at the end of three months could walk as far and as well as most women in health.

The ligaments of the womb were anemic, the cold over the congested sympathetic ganglia expelled the excess of blood from the latter; less strong nervous currents were sped to the arteries supplying the muscular tissues in the ligaments; the vessels expanded; the muscular fibres were nourished, and recovered their natural strength, drawing the womb upward into normal position. By renewing circulation to the weakened ligaments, they were restored to physiological action, and the uterus to its place.

Case No. 2 was 38, at the beginning of treatment. When first examined the womb was external to the labia, enlarged, of a yellow color, and as hard to the touch as cartilage. Hard hypertrophy. This patient was so anemic that only ice-water in a Chapman bag was used over the lumbar region. She was kept in bed during the first two weeks of treatment.

She gained steadily in health, and after three months began business for herself, and has worked steadily ever since, four years having elapsed. The prolapse occasionally takes place now, usually from lifting a weight. which, of course, she was warned not to do. At such times she comes to me and has it replaced. The womb falls now, I should judge, about an inch from its natural position. To the touch it feels quite normal and soft. A better circulation taking place in the uterus, as well as the ligaments, has also restored health to the former.

This patient had been unable to work for three years before coming to me,and had tried all the usual methods.

In the leucorrhea of women of strong physique and full circulation when in health, or, in other words, in women with an inherited good constitution, more or less broke down, and suffering from great vaginal discharge, ice to the dorso-lumbar region gives speedy and, properly continued, permanent relief. I have now on hand a patient who for several years has been a martyr to this disease. She has been under my care for eight weeks, using the bag at first three hours per day, one hour at the time; after three weeks, two hours per day; and now once per day. She has been wholly free from discharge for four weeks.

Several other cases have been relieved in the same way.

In women of feeble physique and a poor quality of nervous tissue great care must be exercised in using Chapman's method, and patience is required both by the physician and patient before relief can be obtained. A feeble muscular system extends to the muscular coat of arteries also; and in leucorrhea, in such subjects, the blood may be driven from the spinal arteries during the ice application, but no contractile effect be produced on them; simply a flabby condition, which at once allows the blood to return in the same amount to the nervous spinal cells, after the bag is

removed; therefore, the same nervous currents are issued to the glands of the vaginal mucous membrane, and the discharge continues.

Also in the dysmenorrhea of such women the dilating effect of the cold to the spine must be carefully watched, because when the weak uterine arteries dilate they are apt to do so so widely as to cause an excessive congestion in the womb, complete cessation of the flow, sense of weight and heaviness, and in one patient I remember a rise of temperature of two degrees.

In the patient referred to, heat was applied over the dorso-lumbar region immediately, with relief to the weight and heaviness, a rapid fall in the temperature to normal, and renewal of the flow. Directly the flow commenced the heat was removed from the spine.

Just here is a point worth considering in reference to a condition frequently mistaken for septicemia after child-birth. Such cases have a sudden rise of temperature to a high point with no retained placenta, or any known absorption of septic material from the uterus, vagina, or outside sources, with some slight abdominal tenderness, but no definite signs of peritonitis. The high temperature continuing, from 105° to 107° or more, the patient shows symptoms of failure; stimulants are resorted to, and every measure taken; yet the issue is fatal. In women without much reserve force, may it not be that the strain of pregnancy and the exhaustion of labor leave the muscular system, including the arterial,in an exceedingly relaxed condition? Indeed,we know it to be so, by the hemorrhagic tendency shown in such cases after labor. This relaxation, shown by oozing of blood from that organ from slight relaxation of its walls, or immediately dangerous flowing from greater relaxation, would intimate that nervous currents of diminished strength were issued to the muscles of the womb. The arteries being also relaxed in the dilated womb muscle, and the rush of blood being to the lower body, then the peritoneal arteries also will partake of the dilatation, if the flow from the uterus be simply an oozing; the consequences, a rise in temperature, as in cases above mentioned of ordinary excessive congestion of the uterus alone at the menstrual time, a slightly tender abdomen, a dicrotic pulse in the upper extremities and temporal arteries, rapid action of the heart, a gradual sero-sanguineous exudation into the peritoneal cavity, and, no general distribution of the circulation taking place, death from exhaustion. I am inclined to believe that many cases of so-called septicemia are simply due to such a condition as is here described.

In women of delicate and feeble muscular tissue, who tend to hemorrhage after labor, I think that either mental excitement or depression, or either elevating the upper body suddenly during the first two weeks after childbirth, or any but the most oareful moving of the patient, will tend to give rise to the class of symptoms indicating a case of septicemia, without external signs of peritonitis, through the relaxation of blood-vessels described. If this be so, then heat over the dorso-lumbar sympathetic ganglia will, by increasing their function, contract the blood-vessels in both the womb and peritoneum, causing the hemorrhage to cease and the temperature to fall, and distributing the circulation equally through the body, and relieving all the septicemic symptoms, or, in short language, "curing the attack." If there are symptoms of acute peritonitis, then the prompt use of heat over the dorso-lumbar region will usually put an end to the attack.

In all of those dreadful inflammations which constitute the most prominent feature of puerperal fever, I believe that Dr. Chapman's application of heat over the sympathetic ganglia controlling the blood-vessels in the region attacked will be ultimately acknowledged as the most efficient and rapidly-acting remedy to subdue and cut them short.

I do not believe, with Dr. Fordyce Barker, that puerperal fever "is a zymotic disease of unknown origin," and that "local lesions are secondary to changes in the blood" (Lusk, p. 652), but I do believe that high temperature and rapid exhaustion may be often induced by a sudden relaxation of the muscular coats

of abdominal arterioles extending to the peritoneal vessels, from an abnormally relaxed condition of uterine vessels after labor, as well as by local heat or cold injections of various kinds, retained, and decaying portions of placenta, or membranes, etc., acting as irritants upon the exposed ends of severed nerves in the placental site; such irritating effect, being reflected through the trophic nerve centers of the spinal cord back upon the womb, peritoneum, etc., giving rise to a metritis or endometritis, or one of the numerous abdominal inflammations referred to.

I have simply referred to this subject from this point of view, but hope to write further upon puerperal fever and septicemia, in a paper devoted to this subject alone.

Uterine hyperplasia, I believe to be due to excessively strong nervous currents speeded from trophic spinal cells along the trophic nerves or "positive motor" of Chapman, to the parenchyma of the uterus, causing rapid formation of new tissue, and consequent enlargement of the organ. I have treated two cases, which I hope to publish later, by ice over the dorso-lumbar region, in which the hypertrophy rapidly disappeared, and the patients recovered.

Inflammations resulting from abdominal operations, either in the male or female, it would appear, might also be subdued by the action of heat upon the sympathetic ganglia in the dorso lumbar region.

ORIGINAL ARTICLES.

ABSORPTION OF WATER BY THE COLON AND ITS THERAPEUTIC USES.

BY GEORGE J. COOK, M. D.,

President of the Mississippi Valley Medical Association, Member of American Medical Association, Consulting Surgeon for Diseases of the Rectum to the Indianapolis City Hospital and Dispensary, Formerly Professor of Anatomy in Kentucky School of Medicine.

Read before the Mississippi Valley Medical Association, Sept. 26, 1888.

In the autumn of the year 1882, while using large injections of hot water to remove a fecal impaction located in the ascending colon, my attention was called to the rapid absorbing powers of the colon, and also the effect as a diuretic of water thus introduced in large quantities into the circulation.

This patient, to relieve intense pain, excited by the hard fecal mass, had taken freely of morphia and was thoroughly under its influence when I first saw him, a good condition in which to begin the treatment which I proposed, viz., the injection of water to soften the obstruction.

I threw into the colon about a gallon of water at a temperature of 115° F., and instructed the patient to retain it as long as possible. The next morning when I called, the patient in alarm informed me that the water had not yet passed away, and during the night he had had great trouble with his bladder, having to relieve it every hour. The quantity of urine passed during the night was almost equal to the water injected the evening before. The hot water had also the effect of relaxing the colon and relieving pain, he having no occasion to take more morphia during the night.

Having to repeat the injection several times before the obstruction was removed, I closely observed the results. Each time before repeating the injection, I gave a full dose of morphia to quiet peristalsis, and with this preparation the colon retained the water without pain or inconvenience to the patient. It was rapidly absorbed, and within eight or ten hours from three to five pints of urine would be passed, varying in proportion to the quantity of water used. The skin was moist, but no diaphoresis occurred.

Since that time I have had occasion very many times in my practice to use large injections of water in the colon for various diseased conditions, and have had abundant opportunity for observing a repetition of the facts stated in connection with the first case in regard to the rapid absorption of a large quantity of water by the colon, and its immediate effect as a diuretic.

In these cases the colon was frequently in

an irritable condition, but with the aid of morphia the peristalsis could always be controlled and the intestine placed at rest when it was desirable to have the water retained. I have injected water into perfectly healthy colons to observe what quantity could be held without the use of morphia to quiet peristalsis, but never succeeded in having a quantity kept and absorbed that would materially affect the quantity of urine.

Subjects of chronic constipation, with atony of the colon, may retain a large quantity of water without morphia. In these the colon is already in a condition similar to a healthy one under the influence of morphia.

When we wish to place the colon at rest to retain and absorb water, it is best to give the morphia a half hour or an hour before injecting the water, though if the colon is very irritable it may require several doses, given at intervals during the preceding six or twelve hours. The injection should be made directly into the colon, and not allowed to flow through the rectum by the use of the ordinary syringe. The best instrument for the purpose is a Wales' rectal bougie, introduced until the end rests in the sigmoid flexure, then with a syringe attached to the outer end, the colon can be filled without distending the rectum. The water should be made to flow very slowly, a fountain syringe is the best for the purpose.

The temperature that I have found most agreeable is from 110° to 115° F. The desirable position for the patient is on the back with the pelvis raised slightly. This position enables you by percussion to trace the water as it fills the colon, to tell when it reaches the cecum, and the amount of distention. If there is no obstruction the water will flow freely around the colon, which should be only moderately distended, usually from three to five pints can be used at an injection.

The normal colon is slow to respond to excitants, compared with the rectum, the latter being much the more sensitive part of the large intestine, having a nerve supply direct from the spinal cord. When the healthy rectum is distended, it responds quickly and expels its contents, and this excitation will be transmitted to the colon and cause it to act more promptly. But when the normal colon alone is distended by injection, it requires from 15 to 30 minutes for peristalsis to be excited. This is the special reason for throwing the water directly into the colon when we want it retained.

After free diuresis is caused in this way in a healthy person, I have examined the urine to determine if the solids were increased during the 24 hours, but never found any increase in their amount, and reason would not indicate that there should be an increase in an individual perfectly healthy. Diluting the blood with an excess of water and increasing the blood pressure should not increase the waste products in it.

The introduction of a large quantity of water in this way into the circulation provides us with a certain, non-irritating and non-stimulating diuretic, a therapeutic agent which we are often in great need of to wash out the kidneys and drain from the blood the poisonous excretions. The quantity of water which can be introduced at once through the colon into the system, is much greater than can be taken in any other way. Absorption is prompt and rapid, the blood is diluted with pure water, and the blood pressure greatly increased within a short time, conditions favoring the flow of water out through the kidneys.

In acute febrile conditions, when the water is being rapidly taken from the system by the cutaneous and pulmonary evaporation, and the renal blood pressure is greatly lessened by the attraction of blood to the surface of the body, the kidneys often become inactive. In such cases free diuresis can be excited promptly by the introduction of water through the colon.

In cases of continued fever, when the tissues are being dessicated by the free evaporation, and emaciation is progressing rapidly under the influence of increased temperature, and only a small quantity of fluid can be taken by the stomach, great good can be done by conducting water freely through the colon

into the circulation. The blood-vessels are filled and the tissues again supplied with water, which will induce a free action of the kidneys and also other glands of the body and wash out the waste material, the result of rapid tissue change which takes place under a high temperature.

The most important therapeutic action from water used in the manner described is in diseases of the kidneys, and in these it can surely be made of great use. In renal hyperemia, when we scarcely dare to give a diuretic that is irritating or stimulating, and all diuretics except pure water are more or less irritating or stimulating to the kidneys, we can use pure water freely. It is safe and will filter through the Malpighian tufts, wash from the epithelial cells of the convoluted tubes the solids secreted there, and deplete the kidneys.

In acute and chronic parenchymatous nephritis, when the tubules are clogged with epithelial or waxy casts, the large quantity of water which can be made to flow through the kidneys in a short time by this method, will wash out the casts, clear the kidneys and make them much more useful. The water filters through the glomerules above the cast and will readily displace it.

Water, when absorbed through the colon, enters the portal circulation, and to reach the general circulation has to pass through the hepatic capillary system. What effect the passage of a large quantity of water in this way would have on the liver, I cannot say, but would suggest that the effect might be beneficial in acute and chronic congestions of this organ.

I have attempted in this brief paper to call attention to a subject that has received but little consideration, and one which I certainly regard as important.

PERI-PROCTITIS: SLOUGH OF THE POSTERIOR WALL OF THE RECTUM DUE TO IMPACTION OF FECES IN A PATIENT SUFFERING FROM SCARLATINAL NEPHRITIS.

BY A. H. MEISENBACH, M. D.

Peri-proctitis signifies an inflammation in the areolar cellular connective tissues surrounding the rectum. In works on the rectum, this disease is not designated under this term, but may be understood under the term of deep seated rectal abscess, or abscess of the ischio-rectal fossa, or superior pelvi-rectal space according to the situation of the inflammatory process.

Another term also used in the books, that describes an inflammation of a severer type, is gangrenous cellulitis which sometimes affects the ischio-rectal region.

Causes.—Peri-proctitis may depend on a variety of causes; it may be due to traumatism external or internal; external, as falls kicks and blows; internal, as by injury from careless use of syringe point, or by foreign bodies, such as bones of fish, etc., lodged in the rectum; the pressure of the child's head during parturition; from extensive secondary inflammotion from adjacent organs, as inflammation of the prostate,urethra,etc.,or from disease of bones of pelvis undergoing necrosis.

Fecal impaction is also liable to be a cause of periproctitis, as is well illustrated in the case described in this paper.

Also, a factor in producing disease in and about the rectum may be classed certain constitutional conditions: thus we find abscess and fistula, a very frequent condition in phthisis pulmonalis. In constitutions that do not manifest tubercular diathesis disease about the rectum is also frequently found. Thus in patients who are high livers and consume large quantities of wine and beer, and in whom the portal circulation in continuously engorged, are very prone to inflammations in and about the rectum. I have seen these cases in this class of patients in whom deep-seated rectal abscess occurred which could be attributed to this cause, premising of course that the system generally had been run down on account of too liberal potations.

The following is a case of periproctitis due to fecal impaction.

Mrs. D., æt. 43, mother of 8 children, a strong healthy looking woman—above the average in health and physique.

Her youngest child had been sick with scarlet fever, of a dangerous type, and she as a faithful mother had spent night after night at the bedside for four weeks watching over her little one. She was taken with a feeling of malaise, and complained slightly of her throat. Nothing of importance was found by an examination of the throat, and her condition was looked upon as due to relaxation after a severe strain, induced by worry and loss of rest. She was kept under surveillance and given tonics. She had slight fever, no rash or exanthem of skin. She began to complain about Jan. 1. Jan. 14 she was up and felt well. Jan. 15 I was called and found the patient had high fever and my attention was directed to her urine which was like coffee-grounds. Microscopic examination of the urine revealed it highly loaded with blood and casts. The appearance of these symptoms left no doubt as to the malady she had been suffering from, viz., scarlatina non-exanthemata and now as a sequela nephritis had set in. I prescribed purgatives (saline) which acted very freely, and gave diaphoretics and diuretics.

Jan. 16 the late lamented Dr. Otto Greiner was called in consultation (who had also been consultant in the case of the child.) Patient complained of considerable pain on micturition, and burning sensation about base of bladder, vagina and in rectum, so that it was deemed advisable to wash out the bladder with warm water and give hot vaginal douches. The symptoms were at this time referred to the nephritis as a cause.

Suppositories of opium were given per rectum. This gave some relief, but there was still a great deal of pain about the parts. Urine became smaller in quantity and gradually less so that by the 18th there was, anuria, which lasted for 36 hours. The condition of the patient at this time was very bad, and anticipating uremic convulsions looked as if the case would become hopeless. Under the free use of large quantities of water injected, and liberal use of stimulants, principally champagne with benzoate of ammonia, the urine gradually began to be excreted and what we feared—toxic uremia and convulsions for the time being averted.

For the following week the clinical aspect of the case was that of nephritis, complicated with bladder symptoms. We kept up vaginal and vesical douches, and also gave warm sitz baths which did some good, ameliorating strangury and pain.

One symptom which was very marked during this time, and which kept up until complete convalescence set in, was a very rapid pulse—a pulse of 120-140 and for which no cause could be found in the circulatory apparatus. Of course during the high fever, we expected the pulse to be high, but after abatement of the fever, the same pulse continued in spite of free exhibition of digitalis, alcoholic stimulants, etc.

Jan 25, after the patient had passed another bad night we had occasion to give a clyster, and found something wrong about the rectum, (at the outset, except pain about rectum and vagina I found nothing wrong about parts.) Making a careful digital examination I found a sphacelus of the posterior wall above the internal sphincter, and the rectum filled with impacted feces, so hard that I could not dislodge the mass with my finger. I worked for an hour with syringe, finger and scroop, before I could get the rectum cleared out. I found the sphacelus to extend up higher than the finger could reach, the lower portion loose, the higher portion still firmly attached. Rectum carefully syringed out, with antiseptic solutions, and drainage tube of rubber, placed in rectum, but this did not work well, so substituted one of glass with flange on one end and made bulbous at the other, which entered up into the rectum. The sides of the tube were perforated.

We found, however, that there was such irritation of the sphincter—such painful contraction around the tube,as to make it almost unbearable to the patient, and it was decided that it would be a good plan to divide the sphincter in order to paralyze it and also, to afford better means of drainage. This was done with the thermo-cautery under anesthesia.

The external sphincter was cut through leaving some fibers of the internal sphincter intact. The division was made in the coccy-rectal space. The thermo-cautery was deemed safer than the knife, inasmuch as it prevented the possibility of hemorrhage and also would not open an additional channel for infection, as it left the vessels of track of wound closed and an es char on its surface.

The drainage tube was now borne without material discomfort.

The treatment of the rectum consisted of daily irrigation with antiseptic fluids and powdered iodoform in rectum and on surface of divided sphincters.

This attack of peri-proctitis following upon scarlatinal nephritis, in a patient whose sys-

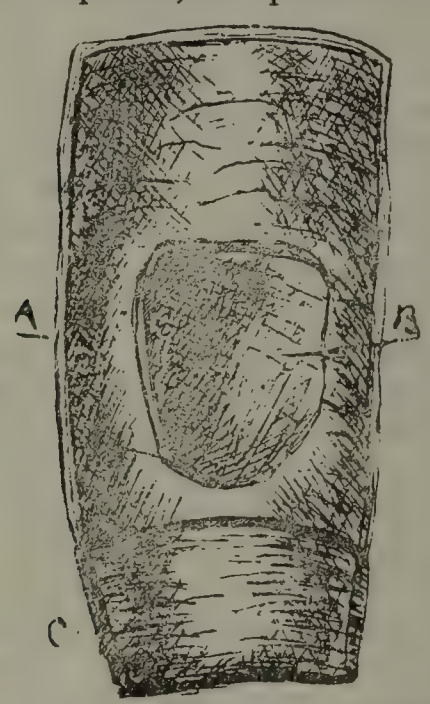

FIG. 1. A. Section showing Posterior Wall of Rectum.
B. Situation of Slough.
C. Sphincter.

tem was already debilitated, could of course admit of only a very guarded or doubtful prognosis.

The periproctitis manifesting itself as it did in involving such an area, was a cause for grave consideration, to say nothing about the nephritis, and its train of symptoms which complicated the case to its close.

The slough gradually separated in the rectum leaving a large granulating surface the size of half a hand. Granulations sprang directly from the periosteum of the sacrum, for the tissue between the posterior wall of rectum and sacrum was completely destroyed, and with the finger, could be clearly marked out, the outlines of the granulating surface marking edges of intact rectal wall, the edges bound down firmly and central portion of surface directly on the bone, for the lower sacral foramina could be distinctly felt.

The rectum gave no further trouble, but there were at times manifestations of dropsical effusions in extremities as well as in the thoracic and abdominal cavities due to the nephritis, and the danger of general anasarca, or what was more to be feared was tubercular infiltration due to the suppurative processes going on, was continually a source of apprehension. But thanks to a strong constitution

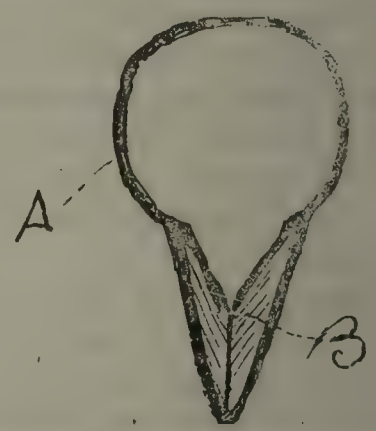

FIG. 2. Diagram of Sphincter cut through.
A. Rectum.
B. Inscision.

and careful nursing our patient finally began to convalesce, and by the middle of June was discharged.

The divided sphincter healed kindly as did also the site of slough, and the patient is able to retain feces well. At this time the only inconvenience she experiences is that when there is desire for stool the patient must promptly answer the call, not being able to offer the amount of resistance that she could before division of the sphincter.

The points of interest in this case are first, the insidious nature of the scarlatinal infection, which was only proven by its sequela, nephritis and what I failed to state, desquamation of the epidermis.

Now every practitioner of medicine of extended experience well knows that there are many cases of scarlet fever that are overlooked and only mark the fact of having been present by the sequela, no exanthem having been present or of such slight duration or so mild as to escape observation.

I distinctly recollect the case of a little girl in whom the eruption was not present for more than an hour, where there was fever running the course of scarlatina and proven by subsequent desquamation of the cuticle. Secondly the impaction of feces in the rectum. Now women as a class are prone to constipation, and this patient was not an exception to the rule,perhaps. At the outset of the disease, she was given saline purgatives which acted freely, but what does this prove? Nothing. It does not follow that the bowels were evacuated, for in referring to this subject you will find that patients suffering from impaction of feces will often have diarrhea and be treated for that and tenesmus. Again impactions of feces in the colon may simulate tumors, enlarged mesenteric glands, or give rise to reflex nervous conditions simulating incipient disease of the brain, hypo-chondriasis, etc.,—and a whole train of digestive disorders.

How long this impaction had existed before it was discovered it is impossible to say The patient did not evince any other symptoms except the bladder and vaginal painwhich was referred to the condition of the genito-urinary tract due to the nephritis, but which in the light of events that followed, were due to the impaction in the rectum. Possibly had the rectum been examined high up this impaction would have been sooner discovered. I here would call particular attention to examination of the rectum, especially of women; it is, I am satisfied, too often overlooked and, no doubt, often leads to serious complications as the history of the foregoing case illustrates.

Another point of interest is the division of of the sphincter ani by means of the thermocautery, which is bloodless and may be done rapidly under anesthesia. By thus paralyzing the sphincter freer drainage is established, and spasm relieved. This is a measure resorted to too little in painful affections about the rectum, in which there is severe spasm of the sphincter muscles.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, OCTOBER 27, 1888.

GONORRHEAL RHEUMATISM.

A girl nine years of age was brought to Victoria Hospital (*Lancet*) by her mother who stated that the child had suffered for a week from a thick purulent discharge from the vagina, and a smarting pain on micturition. The interesting feature of the case was that the patient began to complain of aching pains down the back of the neck. This was followed by pain along the bicipital tendon of the right leg, then along the same tendon on the opposite side. These pains became less severe, but then began in the left foot, first on the inner side of the heel, then along the sole, and finally in the first metatarso-cuneiform joint. There was no history of injury and no family history of tubercle. On examination, the joint was intensely painful, red, hot, and swollen; there was extreme tenderness, both superficial and deep, extending along the plantar fascia to the inner side of the heel. No other joint was affected.

The case was treated as one of gonorrheal rheumatism, and the patient rapidly recovered. The mother afterward admitted that a boy who had been treated for gonorrhea had assauted the girl on three occasions.

This form of rheumatism is certainly rare when compared with the number of cases of gonorrheal infection. This has led some to doubt that it ever occurs.

A severe case of gonorrheal rheumatic iritis came under my observation last year. Both eyes were affected, the vision of the right eye being reduced to twenty two-hun-

dredths, and that of the left to perception of light. In this case the history was clear, the condition of the eyes varied with the patient's rheumatism, and persistent treatment, principally constitutional, restored normal vision to the right eye, and twenty fiftieths to the left.

Intestinal Obstructon due to Meckel's Diverticulum.

Opening the abdominal cavity as a means of reaching obstruction of the bowel, has become a thoroughly established operation. Statistics as to the results obtained are rapidly multiplying, and they seem to indicate that more patients die for lack of interferere,(including those operated upon too late), than as the result of operation. Nothing is more certain than that a patient suffering from intestinal obstruction will die unless the obstruction be relieved.

Mr. G. Gibson Hamilton reports in the *Lonodn Lancet*, two cases that strongly point to the necessity for operating early. In one case a boy, 6 years of age, was seized with symptoms of acute intestinal obstructlon. These symptoms increased in severity till the following evening, (18 hours after their first appearance) at which time Dr. Hamilton opened the abdominal cavity, relieved the constriction, closed the abdomen in the usual way, and the patient made a good recovery. In the second case the symptoms were not so clearly defined,and they were not considered severe enough to justify an operation till on the seventh day, at which time the abdomen was opened, but the boy died six hours later. The life of the first patient was saved through operative interference, the life of the second patient was probably lost for the lack of interference.

The cause of obstruction in these two cases was the same, in the first case a loop of intestine was constricted by a Meckel's diverticulum, and in the second case the intestine became looped around a diverticulum, or blind pouch which sprang from and communicated with the ileum. We have recently published in the Review the investigations made by Dr. Dixon, of Henderson, Ky., as to the value of the use of hydrogen gas in the diagnosis of intestinal obstruction. It is to be hoped that other cases may corroborate Dr. Dixon's experience, as this will enable the surgeon to quickly determine whether or not he should operate.

Possible Dangers from Rectal Insufflation of Hydrogen Gas.

In reply to an inquiry from the *Journal of Am. Med. Ass'n*, a distinguished teacher in chemistry gave two possible dangers from the use of Senn's method for diagnosis of intestinal perforations:

"I. Unless the hydrogen were generated from perfectly pure material, it might contain impurities of greater or less toxic power. The most dangerous of these would be arsenide (arseniuretted hydrogen), which is one of the most powerful poisons with which we are acquainted when inhaled into the lungs, and presumably quite dangerous, also, when injected into the bowels. Since both sulphuric acid and zinc, as ordinarily found in commerce, are usually considerably contaminated with arsenic, the hydrogen given off from such material would be quite rich in the poisonous hydrogen arsenide. Professor Senn directs that pure zinc and acid be used, but a careless operator might forget or neglect this and use commercial material, with results that I fear would be exceedingly unpleasant, if not dangerous.

"II. There is certainly danger of getting a mixture of atmospheric air with the hydrogen, either by faulty generation or by unskilful manipulation during insufflation. In that case, an explosion would be likely to occur, upon applying a light, which might do considerable damage. Care, however, could remove this danger wholly, for a skilful operator would assure himself of the purity of his hydrogen before using it, nor would he permit it to become contaminated during use. As there is but a very small amount of oxygen in the intestinal gases, I think there would be no danger of an explosive mixture

being formed after insufflation of a pure gas.

"I think we may conclude, therefore, that Professor Senn's method is entirely destitute of danger in careful hands; but if unskilfully employed we might very possibly have bad results either from a poisonous gas or from an explosive admixture of air. This, however, does not detract from the value of the procedure, for scarcely any operation in surgery is safe unless carefully conducted."

A Large Urethral Calculus.

Dr. H. G. Mudd, of St. Louis, reported a case at the Congress of Physicians and Surgeons in which a calculus weighing two hundred and eighty-one grains, and measuring three and one-half inches in circumference, and two and a half inches in length, was removed from the male urethra in advance of the bulb. There were other smaller stones removed from the membranous portion of the urethra. It seems there is no limit to the size and number of stones a man may have.

A Rare Deformity.

A case is reported in the *L'Union Medicale*, in which a young primipara was found to have no perineum, and the inferior strait seemed one vast chasm. The remarkable feature of the case was that an orthodox anus was found located midway between the neck of the uterus (which was in its normal position) and the point where the anus should have been. The anus was under perfect control of the patients's will. The labor is said to have been an easy one.

EDITORIAL ECHOES OF THE M.V.M.A. ANNUAL MEETING AT ST. LOUIS, SEPT. 25, 26, 27, 1888.

BY I. N. LOVE, M. D.

Dr. A. W. Spain's paper on Consanguinity was an able one, and it together with the views expressed by Dr. E. S. McKee, of Cincinnati, Ohio, were strong arguments in favor of the idea that so far as the effects of consanguinous marriage upon the development of disease in the offspring go, the reresult is nil.

The same arguments apply against the marriage of persons with similar physical, mental, or moral defects, whether they be kinsman or not, no more no less.

The profession and the world owe much to Dr.McKee for the development of this theory. The records of antiquity go far to sustain the position of Drs. McKee & Spain. How often have two hearts that should have beat as one been rudely and sentimentally severed by the objectors to consanguinous marriages, and too possibly a larger number of lonely unhappy lives been the result.

* * *

Every mail since the close of the meeting has brought letters expressive of satisfaction with and appreciation of the work done by the Association upon the part of those in attendance.

Dr. J. C. Culbertson, editor of the *Cincinnati Lancet and Clinic*, says in the issue of Oct. 6. "Thus ended one of the most profitable medical society meetings it has ever been my good fortune to attend. We cannot but predict for the Mississippi Valley Medical Association a future of the greatest usefulness to the medical profession, to the cause of scientific culture and benefit to the people."

* * *

The pharmaceutical exhibits made in the lower hall of the Pickwick building were attractive and interesting and gave evidence in favor of their being on occasions of this character a source of profitable instruction to the visiting doctors, in that, they are by such means given a practical demonstration of the progress made in pharmacy and surgical appliances.

If the exhibits be made in a separate room which is not obtrusive there can be no legitimate objection made to them. It is possible that they may sometimes be so interesting and alluring, and the cultivated ones having them in charge may be so fascinatiug as to se-

duce the delegates away from the hall where the real object of the convention are under consideration, viz., the advancement of science. In order to obviate this possible cause of complaint the Committee of Arrangements at all future medical conventions might find it convenient to direct that the "Exhibit Apartments" be closed and locked during the hours when the association is in session.

I have no doubt that the various exhibitors would gladly accept such arrangements.

* * *

In this connection I am free to say that I am quite surprised that one of the largest, best equipped, most progressive and reliable pharmaceutical establishments of the world, (Park, Davis & Co., of Detroit, Mich.), a house which is a credit to American enterprise and business brains, and to which the medical profession is under heavy obligation for its grand work in the development of the modern meteria medica, should make an effort to secure the discontinuance of all pharmaceutical exhibits at medical conventions. I have before me now the official programme of the local meeting of the British Medical Association, which is held up to us by many of the nestors of A. M. A (as a model of all that a scientific, hightoned, medical body should be) wherein appears as a section or department of the Association the Exposition of Surgical Appliances, Drugs and Chemicals under the management of a Special Commitee of Eminent Scientists equal in character to the committees in charge of the other sections of the association, many of them bearing in addition to their professional honors titles of nobility. It seems odd that this movement upon the part of P., D. & Co. which was initiated at the last meeting of the A. M. A. at Cincinnati by Dr. Wm. Brodie supposed to be representing them should be very soon followed up by a sympathetic editorial in the official journal of the A. M. A., when, as is very well known, the creation of a new section of the association devoted to pharmacy was in contemplation.

* * *

A few weeks prior to the meeting of the M. V. M. A. in September a letter was addressed by the Committee of Arrangements to the leading medical and surgical furnishing houses of the country, announcing the securement of a hall for exhibitors and inviting them to participate. The only letter of declination was received from Park, Davis & Co., and it contained expressed objections to exhibits on general principles. However, it was generally noted at the meeting of the M. V. M. A., that while the house had no distinct space occupied in the exhibit hall, it had an unusnally animated exhibition of its business push, energy and enterprise in the form of four first-class cultured drummers, who were here, there and everywhere in the exhibit hall, the convention hall, the corridors, the streets and hotels, pointedly presenting the claims of the great drug concern they represented by fascinating and convincing argument, and elegant samples as well. Later, by the suggestion of the Exhibit Committee, the repensentatives of P., D. & Co. entered the name of the firm properly upon the list of exhibitors.

All of which has inspired our poetical fiend to put it as follows:

The great P., D. & Co.
Say exhibits must go,
And refuse to take any space.
Yet they take space quite ample
To distribute each sample,
And they did it with both gall and grace.

They announce no exhibit,
And would even prohibit
The display that the committees instruct.
But their exhibit is made
Of a very high grade
Of arms, legs and tongues,
Of wind and of lungs,
That brings back its own usufruct.

Though the great P., D. Co.
Say exhibits must go,
All the same they're down on the list.
Their own platform they trample,
And give an example
Of consistency that doesn't consist.

* * *

Unfortunately the course which the representatives of this great establishment pursued

was misunderstood by some, and as a result there appeared in the daily St. Louis *Republic* of Sept. 28, a reference to the same where in it was charged that the reason P. D. & Co. was not desirous of permitting the exhibits to be continued at medical conventions was that their goods were not able to cope with those exhibited by rival houses. This, of course was incorrect and unjust, as every member of the medical profession of America is well aware that the name of this firm stands to-day as it has ever stood for honesty, purity and reliability in drugs. One is safe in swearing by anything turned out by this great establishment, which is a source of pride to our great and growing west.

I am free to say that Parke, Davis & Co., have made a mistake in taking a position antagonistic to the profession's desires in the matter of exhibits at medical conventions, but I am just as free to say thas this course in no manner reflects upon the trustworthiness of their products, and it approaches the absurd to suggest it.

* * *

The Association did well in selecting Evansville, Ind., as the next place of meeting. It is very accessible from every direction, and with Dr. A. M. Owen as chairman of the committee of arrangements the meeting of 1889 cannot be otherwise than successful.

Up and down the Valley states for the next twelve months the refrain shall be carried along, we're coming, father Abraham, a half a thousand strong.

* * *

Bear in mind that Dr. Robert L. Thomson, 3555 Olive Street, St. Louis, is the Secretary of the Association for the coming year, and for full information regarding the M. V. M. A. he should be addressed.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Sept. 22, 1888.

F. J. Lutz, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. H. C. Dalton.—I have here a here a very interesting specimen of aneurism of the aorta. I am sorry that I cannot give you the history of the case as the patient died very shortly after coming into the hospital, and I cannot give any or the previous history.

The patient was a negro man, aged 37 years, occupation a barber. He entered the hospital Sept. 17. The post-mortem was performed one hour after death. The body was fairly well perserved, gums of a white color due to internal hemorrhage. The left auricle of the heart was hypertrophied, the aorta atheromatous. On opening the abdominal cavity in the median line, the peritoneum lining the cavity posteriorly to the left of median line was found to be greatly pushed forward, due to sub peritoneal effusion of blood. This effusion extended laterally, on the left side, and downward, involving the tissues covering the bladder and that lining the greater portion of the pelvic cavity. This effusion was from one to two inches in thickness and seemed to consist of ordinary clot. The abdominal aorta was then slit up anteriorly. On the posterior wall just opposite the celiac axis was found a rounded opening perhaps the size of a quarter of a dollar leading into a cavity: the finger introduced in this opening was barely able to sweep its boundary walls, the vertebræ were felt exposed, the anterior portion of the last dorsal and first lumbar vertebra were eaten away anteriorly and laterally on the left side for the depth of about half an inch, the intra-vertebral substance remaining intact. The right wall of the aneurismal sac corresponds to the right side of the vertebra in the posterior wall of the aneurismal sac. Just to the left of the spinal column and on a level with the third lumbar vertebra wat found an opening which communicated with the sub-peritoneal cellular tissue. The left kidney as imbedded in a mass of clotted blood. The effusion did not invade the peritoneal cavity. The specimen also shows the posterior portion that lay against the vertebral column, was entirely gone to the extent of an inch and a half in diameter in every direction. The sac

is about the size of two fists, being very large.

Dr. Wm. Porter.—I have nothing to say in regard to this case, but it recalls to my mind a very interesting one that I saw some years ago. I was called to see a man who was already dead, the cause of death being unknown by the parties in whose house he was, he being a stranger. All they could give of his history was that he had been under treatment for some nervous trouble, and that he had died suddenly in his room. At the autopsy we found a large aneurism of the descending aorta, and that the aneurism had very greatly injured some of the bodies of the vertebræ.

The imteresting point about the case was that the patient had been examined by a prominent neurologist of our metropolis, whom I met this summer. I reported the case to him, and he stated that he had found that there was irritation of the spinal cord. That was very true, and the aneurism caused this irritation.

I was yesterday in consultation with Dr. Keating Bauduy who I hoped would be here to-night, in a case which we believed to be abdominal aneurism. The symptoms are all present except that there is no lateral distention; there is the bruit, the impulse and the distnrbed circulation, etc., and experimenting, as some of you know I am in the habit of doing, with the sphymograph, I find, as in other cases where there is aneurism, that where the arteries are normal as at the wrist, there was the usual tracing, especially in the fall of the needle. You remember there is first a small descent, an off-set, then a gradual dropping of the needle. At the aneurism there is no point which corresponds to that of the arterial elasticity; the descent is continuous. In this case, although it is very difficult to take a tracing of an aneurism in the abdomen, it was an unbroken line. While it is only corroborative, I would not place the result of the sphymograph as in itself of first importance, yet it is evidence.

Dr. Lutz.—I would like to ask Dr. Porter what has been the result of his treatment of aneurism of the abdominal aorta by electrolysis—coagulation of the coutents. You will remember that latterly the introduction of wire has been practiced.

Dr. Porter.—I know very little about the the last named method from my own experience. I have treated most of the cases which I have treated at all by compression, and they have not resulted favorably. The literature upon the subject I think is as yet too recent to enable us to form an opinion as to the value of wire insertion. Ransohoff, I believe is impressed with its atility, but further than his reports I have no opinion as to the benefit of it. The cases in which I have used electrolysis were cases of thoracic aneurism in hospital practice and the result was not very encouraging. Coagula were formed, but the live of the patient were not extended much and recovery not effected. I think we have not yet arrived at a point where we can say that we have any great addition to our work in this department.

Dr. A. H. Meisenbach.—Dr. Ransohoff, at the meeting of the American Medical Association, reported that he had used the wire in from eighty to a hundred cases for thoracic aneurism. The cases finally died, but in some of them he improved the condition of the aneurism.

Dr. A. H. Meisenbach read a paper reporting a case of peri proctitis.

Dr. Wm. Johnston.—I would like to ask Dr. Meisenbach whether the sloughing of which he speaks occurred before he used the galvano-cautery or after.

Dr. Meisenbach.—Before the cautery was used.

Dr. Johnston.—Then the rectum was not destroyed?

Dr. Meisenbach.—No, sir.

Dr. Johnston.—Was there a rectal abscess present, and if so, was it punctured?

Dr. Meisenbach.—There was no rectal abscess anywhere as you understand the word abscess; it was simply an impaction of feces in the rectum, and of course the impacted feces pressed upon the posterior rectal wall

occluding the circulation on account of which the sloughing occurred in and about the rectum.

Dr. Johnston.—Was the sloughing the result of the abscess?

Dr. Meisenbach.—It was the result of the impaction of the feces.

Dr. Johnston.—If you have impaction of the feces, how are you going to have sloughing without some form of abscess? I have seen a great many of these abscesses and as a rule they are followed by fistula. In this case, as I understand it, there was impaction of the feces; the child was suffering with scarlatina; the mother contracted the scarlatina and suffered with impacted feces; the impacted feces caused a sloughing. There are several conditions which favor sloughing: it is apt to occur in patients of scrofulous diathesis. As a rule females, being of sedentary habits, suffer with constipation of the bowels, and it is a fact that those who suffer with impaction of feces in the lower bowel always suffer more or less with irritation of the neck of the bladder. It is well known that saline purgatives empty the colon, and that aloetic remedies empty the lower bowel, and in all cases where you have a patient of sedentary habit, it would be better to use this medicine which from experience and observation has proved effective. Of course, after a case has been gone through with it is easy to see the points overlooked.

Dr. J. R. Lemen.—I think Dr. Johnston has misunderstood Dr. Meisenbach; he seems to think that the doctor operated on the neck of the bladder. If I understand him aright, he divided the sphincter ani, which is comparatively a simple operation; I would like to say that I think the case reported by Dr. Meisenbach was one of proctitis, due to impaction of feces, which is one of the most frequent causes of proctitis; and that there was not an abscess about the rectum shows that it was not peri-proctitis, but proctitis with sloughing of the rectal wall, which is a comparatively common trouble. Now this was undoubtedly a case of very bad impaction. Almost every person who is constipated is troubled more or less with impaction of feces. The rectum is not the place for the feces to stop; it acts as a neck to the sigmoid flexure of the colon, which is the stopping place of the feces until they are ready to be evacuated, and then they descend into the rectum and are evacuated. Now I do not think the operation which Dr. Meisenbach performed with the cautery was the best. I would have performed simple division, or a dilatation of the sphincter. The object of dividing the sphincter was to secure drainage, the rectum being very much inflamed, there being a good deal of sloughing, with pus, etc., and the doctor did perfectly right in securing drainage—I mean free drainage—but I would rather divide it with the knife or dilate it. I believe he states that the patient cannot retain her feces very well now. If there had been a simple division or dilatation, I don't think this would have resulted.

Dr. Meisenbach.—I did not state that she could not retain her feces, but that when she had a call to stool it was necessary for her to respond promptly; there was not the same amount of resistance as formerly.

Dr. Lutz.—The chair did not understand Dr. Meisenbach to say that drainage was the only reason for the division of the sphincter, but that he also desired to overcome the tenesmus and spasmodic action of the sphincter which were present.

Dr. Johnston.—I understood the doctor to state that he divided the sphincter of the bladder.

Dr. Lutz.—I would like to ask Dr. Lemen how often in dilating the sphincter with his fingers he has succeeded in paralyzing the sphincter either for the purpose of drainage or to relieve the spasm of the sphincter ani which is associated with most of the difficulties affecting the part.

Dr. Lemen.—I think I have succeeded in every case. I can dilate the sphincter to such an extent that there is no trouble in examining the part or performing any operation on the rectum.

Dr. Lutz.—How long does that last?

Dr. Lemen.—It usually lasts about a week.

Dr. Lutz.—The experience of Dr. Lemen differs materially from my own. The doctor may be stronger than I am, or the recti with which he has to deal may be more dilatable. On numerous occasions I have dilated the sphincter until I thought my thumbs were firmly fixed against the tuberosities and I would make the entire circle, and I have been chagrined to find that the dilatation was but temporary, so I have thought that perhaps the dilatation of the sphincter was more talked of than actually done. We know the sphincter ani can be dilated to a great extent without rupturing the fibres, and it has been my experience in the majority of cases that I have operated upon that I have not been able to satisfactorily dilate the sphincter with my fingers; but that the division of it has been satisfactory.

Dr. Lemen.—I was talking to Dr.Mathews, of Louisville, recently. He does not dilate with the fingers, but uses a Cook's speculum by which he divulses the sphincter. He does that all the time in his operations.

Dr. Meisenbach.—I am in a measure willing to grant that initially my case was one of proctitis; yet the whole history of the case, the manifestations of the symptoms, are not those of proctitis. In the first place, proctitis does not ordinarily run such a serious course. There may have been a time when back of the accumulation of the feces in the rectum there may have been a local, circumscribed abscess; nevertheless it was a peri-proctitis involving the areolar tissue of the rectal wall.

It may be, as Dr. Lemen, states that the rectum is not the proper lodging place for the feces. This impaction may originally have been in the sigmoid flexure, but it escaped detection, because when this patient first began to complain of bladder symptoms, an examination of the vagina, urethra and bladder was made, and if any impaction of feces had existed in the rectum at that time we certainly would have detected it; it could not have escaped the touch when we were introducing and using the speculum. Nobody who has had any experience in the use of Sims or any other speculum could introduce the blade of the speculum without discovering the impaction. It may be that the impaction existed high up and was of very long duration.

As a rule what we term rectal abscess is superficial, involving the ishio-rectal fossa,ordinarily pointing downward, though even where it is along the posterior wall of the rectum it will point externally. Of course when pus is detected the treatment should be to evacuate it early.

In regard to divulsion of the sphincter I agree with Dr. Lutz. I believe that the benefit obtained is only temporary, and when the purpose is the placing in position of a drainage tube, the complete severance of the sphincter by the knife or a cautery is the thing. In this case it was deemed best to use the cautery for the reason the patient was already debilitated and prone to septic infection, and we did not want to open further channels, by using the knife in dividing the sphincter.

Some authorities say the best divulsor is the thumb. Anybody who has ever tried it, knows that it requires a large amount of force to stretch the sphincter ani, and we cannot get any benefit whatever from stretching or divulsion unless we tear the fibres. You can stretch it from one tuberosity to the other and probably not tear the fibres. The question may arise in the minds of some gentlemen whether the specimen which I have presented was not a portion of the mucous membrane. Now when this slough separated from the posterior wall of the rectum there was a portion which could be clearly defined by the finger; there was the thickness of the wall of the rectum to be felt, which posteriorly was bound down to the bone, in which there was a considerable mass of granulations; in the bottom of the cavity could be felt the depressions, tuberosities and ridges of the bone,that proved that the space between posterior wall of the rectum and bone had been destroyed, and the edges of the remaining ulceration were firmly bound down.

SELECTIONS.

EPIDEMIC DISEASES.

An important memorandum on the proceedings which are advisable in places attacked or threatened with epidemic disease, which has been drawn up by Dr. George Buchanan, F.R.S., has been issued to sanitary authorities by the Local Government Board. In this memorandum it is stated that, wherever there is prevalence or threatening of cholera, diphtheria, fever or any other epidemic disease, it is of more than common importance that the statutory powers conferred upon sanitary authorities for the protection of the public health should be well exercised by those authorities acting with the advice of their medical officers of health.

Proper precautions are equally requisite for all classes of society. But it is chiefly with regard to the poorer population, therefore, chiefly in the courts and alleys of towns, and at the laborers' cottages of country districts, that local authorities are called upon to exercise vigilance and to proffer information and advice. Common lodging-houses and houses which are sublet to several small holdings always require particular attention.

Wherever there is accumulation, stink or soakage of house refuge or of other decaying animal or vegetable matter, the nuisance should as promptly as possible be abated, and precaution should be taken not to let it recur. Especially examination should be made as to the efficient working of sewers and drains, and any defect therein, and any nuisance therefrom, or from any foul ditches or ponds, should be got rid of without delay. The ventilation of sewers, the ventilation and trapping of house drains and the disconnection of cistern overflows and sink pipes from drains, should be carefully seen to. The scavenging of the district and the state of receptacles for excrement and of dust-bins will require close attention. In slaughter-houses, and wherever animals are kept, strict cleanliness should be enforced.

In the removal of filth during periods of epidemic disease it is commonly necessary to employ chemical agents for reducing or removing the offense and harm which may be involved in the disturbance of filth. In the removal of privy contents these agents are more particularly wanted if the disease in question be cholera or enteric fever. The chemical agent should be used liberally over all exposed surfaces from which filth has been removed. Unpaved earth close to dwellings, if it be sodden with slops or filth, ought to be treated in the same way.

Sources of water supply should be well examined. Water from sources which can be in any way tainted by animal or vegetable refuse, especially those into which there may be any leakage or filtration from sewers, drains, cesspools or foul ditches, ought no longer to be drunk. Above all, where the disease is cholera, diarrhea or enteric fever, it is essential that no impure water be drunk.

The liability of leaky pipes to act as land drains and to receive foul matters as well as land drainage through their leaks is not to be overlooked. And such leaky pipes, running full of water with considerable velocity, are liable to receive, by lateral insuction at their points of leakage, external matters that may be dangerous. This latter fact is not recognized so generally as it should be, and ignorance of it has probably baffled many inquiries in cases where water services have in truth been the means of spreading disease.

If, unfortunately, the only water which for a time can be got should be open to suspicion of dangerous organic impurity, it ought at least to be boiled before it is used for drinking, but then not to be drunk later than twenty-four hours after it has been boiled. Filtering of the ordinary kind cannot by itself be trusted to purify water. It cannot be too distinctly understood that dangerous qualities of water are not obviated by the addition of wine or spirits. When there appears any probable relation between the distribution of disease and of milk supplies, the cleanliness of dairies, the purity of the water used in them, the health of the persons employed

about them, and the health of the cows that furnish milk should always be carefully investigated. Even apart from any apprehension of milk being concerned in a particular outbreak of disease, it is desirable that English people should adopt the custom, which is always followed in some Continental countries, of boiling all milk at once upon its reception into a house.

The washing and lime-whiting of unclean premises, especially of such as are densely occupied, should be pressed with all practicable dispatch.

Overcrowding should be prevented, especially where disease has begun, the sick room should, as far as possible, be free from persons who are of no use to the patient.

Ample ventilation should be enforced. It should be seen that windows are made to open, and that they are sufficiently opened. Especially where any kind of infectious fever has begun, it is essential, both for patients and for persons who are about them, that the sick room and the sick house be constantly traversed by streams of fresh air.

The cleanliest domestic habits should be enjoined. Refuse matters should be speedily removed or destroyed; and things which have to be disinfected or cleansed should always be disinfected or cleansed without delay.

Special precautions of cleanliness and disinfection are necessary with regard to infective matters discharged from the bodies of the sick. Among discharges which it is proper to to treat as infective are those which come in cases of small-pox and scarlatina from the affected skin; in cases of cholera and enteric fever from the intestinal canal; likewise, in cases of any eruptive or other epidemic fever, the general exhalations of the sick. The caution which is necessary with regard to such matters must, of course, extend to whatever is imbued with them; so that bedding, clothing, towels, handkerchiefs and other articles which have been in use by the sick may not become sourees of mischief, either in the house to which they belong or in houses to which they are conveyed. So far as articles of this class can be replaced by rags or things of small value, it is best to use such things and burn them when they are soiled. Otherwise clothing and infected articles should be subjected to the disinfection of the sick room, or be removed for disinfection by heat.

In enteric fever and cholera the evacuation should be regarded as capable of communicatign an infectious qnality to any night-soil with which they are mingled in prives, drains or cesspools; and after such disinfection of the mass is practicable, they should be disposed of without delay and under the safest conditions that local circumstances permit. They should not be thrown unto any fixed privy receptacle, and above all, they must never be cast where they can run or soak into sources of drinking water.

All reasonable care should be taken not to allow infective disease to spread by the unnecessary association of sick with healthy persons. This care is requisite, not only with regard to the sick house, but likewise with regard to schools and other establishments wherein members of many different households are accustomed to meet.

If disease begins in houses where the sick person cannot be properly accommodated and tended, medical advice should be taken as to the propriety of removing him to an infirmary or hospital. Every sanitary anthority should have in readiness a hospital for the reception of such cases.

Where dangerous conditions of residence cannot be promptly remedied, it will be best that the inmates, while unattacked by disease, remove to some safer lodging.

Privation, as predisposing to disease, may require special measures of relief.

In certain cases special medical arrangements are necessary. For instance, as cases of cholera in this country often begin somewhat gradually in the comparatively tractable form of what is called "premonitory diarrhea," it is essential that, where cholera has appeared, arrangements should be made for affording medical relief without delay to persons attacked, even slightly, with looseness

of bowels. So, again, where small-pox is the prevailing disease, it is essential that all unvaccinated persons (unless they previously have had smallpox) should very promptly be vaccinated and that revaccination should be performed in cases properly requiring it.

It is always to be desired that the people should as far as possible, know what real precautions they can take against the disease which threatens them, what vigilance is needed with regard to its early symptoms, and what (if any) special arrangements have been made for giving medical assistance within the district. For the pur pose of such information printed hand-bills or placards may usefully be employed, and in cases where danger is great house-to-house visitation by discreet and competent persons may be of the utmost service, both in quieting unreasonable alarm and in leading or assisting the less educated and the destitute parts of the population to do what is needful for safety.

The present memorandum relates to occasions of emergency. Therefore the measures suggested in it are essentially of an extemporaneous kind; and permanent provisions for securing the public health have, in express terms, been but little insisted on. It is to be remembered, however, that in proportion as a district is habitually well cared for by the sanitary authority, the more formidable emergencies of epidemic disease are not likely to arise in it.—*Med. News.*

THE EXTENT TO WHICH LEGISLATION CAN AID MEDICAL EDUCATION.

Mr. W. A. Purrington, the Counsel of New York State and County Medical Societies, read a paper last week before the Health Department of the American Social Science Association, showing the extent to which legislation can go in maintaining a proper standard of medical education. This paper was one of several given before the health department, which had under consideration the necessity of higher requirements for obtaining a medical degree.

Nowhere have the effects of legislation, and its proper limitations, been more ably set forth than in Mr. Purrington's paper. Mr. Purrington sent a circular letter of inquiry to every state and territory of this country, and also to the British provinces. Almost every reply expressed approval of some system of regulating by statue the practice of medicine; and the opinion was also strongly given that such legislation as already exist, crude and imperfect though it is, has perceptibly improved the standard of medical education.

Strange to say, there are some opponents to statutory regulation of medical practice who regard it as au infringement of the liberties of the citizen, and therefore unconstitutional; but Mr. Purrington says such legislation is based on principles approved by every judicial authority, and rests on the right of society to self-protection.

The stumbling-blocks in the way of every effort to achieve a wise medical legislation are, first, the ignorance and greed of the believers in, and practisers of, quasi-supernatural methods of treating disease; second, jealousies among the more intelligent adherents to "isms;" third, jealousies between the mother-church of medicine and those of her children that wish to make of their specialties separate professions; fourth, the obstructions from vested interests that consider themselves threatened—the incorporated schools that have some capital invested, and regard their power to confer a diploma operating as a license to practice medicine as their chief stock in trade.

The condition of the statue-books to-day is one of confusion. There are special acts incarporating medical, pharmaceutical, and dental schools, besides acts incorporating medical societies of physicians and of secretarian practitioners of motley nomenclature; general acts regulrting the practice of physics and surgery, of dentistry, of pharmacy; and sanitary regulations and laws creating health boards.

Mr. Purrington regards this jumble as in itself an evil, and an efficient cause of the propagation of false ideas. A logical medi-

cal law, he says, which of itself will be an educator, will recognize the fundamental principle on which all these statues are to be defended, that already indicated, the right of the state to protect the health as well as the life and property of the citizen. One health statue will then be enacted and a responsible board created, that will have in charge the arrangements of quarantine and sanitation, and also the the licensing of medical practitioners of every sort; for he contends that the dentist and the pharmacist should be recognized as medical men.

He thus sums up what, in his opinion, is all that legislation can do in aid of medical education:

1. By fixing a minimum age under which they (physicians, dentists, and pharmacists) will not be allowed to practise their calling.

2. By requiring of each of them a fixed term of study, of certainly not less than two graded years, leaving to the board the care of details.

3. By requiring proof by examination or certificate that each candidate for license had studied before beginning his professional course, at least those branches in which law students are examined in this state before they commence their legal studies.

4. By declaring that no medical schools(in cluding in the term schools of dentistry, pharmacy, and midwifery) shall be incorporated by special act, and providing a general law for the incorporation of such schools,only upon proof made of the possession by the incorporators of sufficient capital—say not less than a hundred thousand dollars—and a teaching plant to justify the belief that the school will be capable of exercising faithfully its franchise. Such an act should contain stringent provisions for its own enforcement and for the forfeiture of abuse charters.

5. A minimum course of medical study should be prescribed, in which a grade of at least seventy per cent. should be attained on examination. The regulation of all details of the examination should be left to the board. But the topics in which the examination should be had, might well be specified in the statue. It might be well to omit the topics of therapeutics and materia medica, upon which all medical heresies have been begotten by unscientific minds, inferring that one who should creditably pass his examination in botany, chemistry, physics, anatomy, surgery, physiology, hygiene, diagnosis, obstetrics, and microscopsy, especially if his clinical examination should show him to be aducated in a true sense to observe and draw sound deductions from observation, might be trusted to form his own conclusions and pursue his own studies as judgment should dictate in the field of therapeutics. The law can have nothing to do with with medical theories. The utmost it can do successfully is to prescribe that none shall practise medicine except persons educated in those branches of science that all admit are essential to an understanding of morbid conditions of our species, and possessed besides of a fair general education.

6. Finally, the law should not recognize any diploma as of itself conferring a right to practise medicine: even if the possession of such documentsshould be required as an antecedent to examination by the health board, it should not be allowed to take the place of such an examination. Any scheme of medical legislation will hereafter embrace that great safeguard against imposture and efficient tracer of frauds, the system of registration, where no one is allowed to practice medicine who has not made a public record under oath of his name, origin, and credentials for a license.—Ed. *Med. Rec.*

IN MEMORIAM.

Action of the Faculty of the St. Louis Medical College on the death of Prof. Benj. J. Primm, M.D.

At a meeting of the Faculty of the St. Louis Medical College held Sept. 10, 1888, in response to a special call to take action on the death of Benj. J. Primm, M.D., Professer of Aanotomy, the following resolutions from the Committees appointed for the purpose, were adopted:

Resolved, That the death of our colleague, Prof. Benj. J. Primm, M.D., in the prime of his life, deprives this college of one of its most useful members. In his short career as a teacher, he had attained to remarkable proficiency in his chair, which, with a peculiar aptitude for imparting instruction, redounded to his own reputation, and gave results eminently satisfactory to the college.

Resolved, That as a physician, he was highly esteemed and respected by his professional brethren, not only for the noble virutes which actuated him in his association with suffering humanity, but for his untiring industry in promoting the advance of medical science.

Resolved, That as a man he endeared himself to the profession, and the community by his kindly disposition, and the entire unselfishness of his nature; and inspired a confidence commensurate with the highest probity and honor.

Resolved, That we shall always hold his memory dear; and as we realize our great loss, we can turn to those upon whom the affliction falls most heavily, and offer our sincere sympathy in their bereavement.

Resolved, That these resolutions be entered upon the records of the Faculty, and a copy sent to the family of the decease, and published in the medical journals of the city.

Prof. E. H. Gregory, M.D.
Prof, H. H. Mudd, M.D.
Prof. W. E. Fischel, M.D.
Prof. J. S. Alleyne, M.D.
Committee.

BOOK REVIEWS.

A Text-Book of Human Physiology, by Austin Flint, M.D., LL.D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, New York; Visiting Physician to Bellevue Hospital; Fellow of the New York State Medical Association; Correspondent of the Academy of Natural Sciences of Philadelphia; Member of the American Philosophical Society, etc. With 316 figures in the text, and two plates. Fourth edition, entirely re-written. New York, D. Appleton & Co., 1888.

The new revised edition of Prof. Austin Flint's work on Physiology is before us. It is needless for us to say that Prof. Flint's well earned reputation, as teacher, author and scientist, is world-wide, and will favorably place before the professional reading public anything that he has to say. Flint's physiology has been a text-book in prominent medical schools, both East and West, for a good many years, and the present edition can but sustain the high regard with which it has been held by medical men all over the world as a work of unquestioned authority and merit. In practical importance, logical force, scientific researches and experimentations, the present edition is the equal, if not in many respeets the superior of former editions. The author claims that the present edition has been entirely rewritten, and much that was unsettled in previous editions left out in this.

It is quite certain to our mind that this edition has been brought up to the highest standard of excellence, commensurate with the achievements of men of science in this particular field of to-day. As an evidence of it the doubt and hesitancy upon the author's mind in previous works on many mooted and unsettled questions has passed away, and facts based upon observation, experience and satisfactory experimentation have been duly elaborated and established.

The author claims that a "new chemical nomenclature has been adopted but that a full account of the chemistry of the body has not been attempted."

Minute anatomy also has been "properly condensed, and concise and connected statements of well established facts given." In the text the English weights and measures and the Fahrenheit scale of the thermometer have been retained and their equivalents of metric system are given in parenthesis." New plates and new figures have been introduced and the work in mechanical execution, style, type and general appearance in every respect

greatly improved. For originality of conception, terseness in expression, fluency in thought, practical, laborious and painstaking in research and investigation, Dr. Flint is certainly the equal of any living author of physiology in this or any other country at the present time.

The work is a credit to the age, valuable for the importance of well established facts and correct scientific principles, and will endure as a monument to the fame, indomitable energy, perseverance and scientific attainments and achievements of the author.

THE ANALYTIC SERIES OF TEACHERS AIDS.—PHYSIOLOGY. A manual of 1000 questions and answers systematically arranged, containing a full treatment of the physiological effects of alcohol and narcotics, with a complete analytic outline of the subject and notes on teaching, an aid in teaching and preparing for examination. By A. C. Clark, Instructor in College of Science, National Normal University. C. K. Hamilton & Co., Lebanon, Ohio; J. H. Chambers & Co., St. Louis, Mo.

There can be no more important way of acquiring knowledge to a student earnestly seeking after it than that furnished through a well and orderly arranged question book. The above little volume answers satisfactorily in outline and intelligent arrangement the necessary aid to the acquirement of valuable information in this particular direction. It contains in small compass much that is important, tersely put and plainly and simply written, and yet, withal sufficiently scientific to meet the requirements of the hour. It will prove of practical aid to teachers and well adapted to common and graded schools, and therefore, of great assistance to the memory and training of the intellect.

The topics for discussion have been orderly arranged and together with the illustrations will greatly aid and strengthen the understanding. The chapter on alcohol and narcotics is replete with much that is valuable from a practical and scientific standpoint. It is just such information as should be in the hands of every student and individual in the land.

The book is well adapted through its pertinent and scientifically practical *question method* of helping both teacher and student to a comprehensive and rapid review of all questions discussed within its pages.

We would cheerfully commend it as a new practical and systematic method of handling important questions.

R. M. KING.

"A CORRECTION.—The *Bost. Med. Surg. Jour.*, from which an extract was quoted by the *Med. Rec.* bearing on the composition of several artificial foods, publishes a correction based upon the analyses ol Profs. Elwyn Waller and A. A. Breneman regarding Reed & Carnrick's soluble food, to the effect that 38.26 per cent of the albuminoids which it contains are in soluble form, that 'no hard unchanged particles of casein' were found, that the casein is partially rendered soluble by the action of the digestive ferment. That the proportion of albuminoids in Liquid Peptonoids is limited only by the quantity which can be kept unchanged in solution, that 16 per cent of alcohol is necessary to prevent decomposition of the albuminoids, and that no greater than three per cent of these can be held in solution in this liquid. We publish the correction from the same source as the original quotation as an act of justice to all concerned, regretting that we, in common with our Boston contemporary, were in any manner misled by what appeared to be a well authenticated official report:—*Med. Rec.* Oct. 13, 1888.

THE offices and warerooms of Mariani & Co. have been removed from 127 Fifth Ave. to 52 W. Fifteenth Street, New York, where they will be most happy to recieve the members of the medical profession and from where all correspondence will have their prompt attention.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 18. ST. LOUIS, NOVEMBER 3, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

NOTES ON OPHTHALMOLOGY.

BY R. L. THOMSON, M.D.

CATARACT OF GLASS-MAKERS.

LEMON-JUICE FOR DIPHTHERITIC CONJUNCTIVITIS.

INTERNATIONAL MEDICAL CONGRESS AT HEIDELBERG, AUGUST, 1888.—*Med. Rec.*

EXTRACTION OF CATARACT.

REMOVAL OF LACHRYMAL GLAND.

SCLEROTOMY FOR GLAUCOMA.

CONJUNCTIVITIS FROM THE USE OF COCAINE.

DIVISION OF OPACITIES OF THE VITREOUS.

TENOTOMY FOR THE CORRECTION OF HETEROPHORIA.—*N. Y. Med. Jour.*

WHEN TO ATTEMPT TO CORRECT CONVERGENT STRABISMUS.

REMOVAL OF OPACITIES OF THE CORNEA BY MEANS OF GALVANISM.

CATARACT OF GLASS-MAKERS.

A Paris correspondent writes the *Jour. of the Amer. Med. Assn.* as follows:

In a note in the *Petit Jour. de la Saute* on the cataract of glass-makers, the author remarks that a German physician found that of 442 glass-makers aged less than 40, there were 42; that is to say, 9.5 per cent. affected with the commencement of cataract; and of 64 glass glass-makers aged more than 40 years, he found 17, that is, 26.5 per cent. affected with the same malady. This proportion is far above the average. In order to account for the cause of this singular predisposition, the author made some researches, and came to the conclusion that the trouble of the crystalline lens is due, on the one hand, to the direct action of the intense heat on the eye, particularly the left eye, which is the most frequently affected; on the other hand, the enormous loss of water caused by the excessive perspiration under the influence of the heat. It is by this excessive loss of water that may be explained, the production of cataract in diabetic subjects.

LEMON-JUICE FOR DIPHTHERITIC CONJUNCTIVITIS.

Mr. Abadie, of Paris, regards lemon-juice as an absolute specific for diphtheritic conjunctivitis. He applies the juice to the entire conjunctival surface every six hours and pays but little attention to the cornea.

The application of poultices has destroyed many an eye.

Notes from the International Congress of Ophthalmology, Heidelberg, August, 1888.

EXTRACTION OF CATARACT.

In speaking of cataract extraction, Dr. Gayet, of Lyons, said: "The opening in the cornea should be large, better too large than too small. Iridectomy as a rule is not necessary. The discision of the capsule of the lens should be made with the knife, as the corneal section is being made. The expulsion of the lens is best effected by the combined pressure of the fixation forceps and the curette.

In clearing the pupil of fragments no instrument should be used, a stream of water directed on the wound and eddying around in the anterior chamber, alternating with massage, suffices to remove all debris and render the pupil clear. All these maneuvres are

rendered easy of performance by the use of antisepsis. The only accident that is to be feared is the entanglement of the iris. This may be caused by spasm, by reflex glaucomatous tension, or by the swelling of the fragments remaining. The first cause is to be avoided by the exercise of the most scrupulous care, and the third by observing the precaution to remove as completely as possible all debris. It is impossible always to foresee and prevent the operation of the second cause. Opacity of the capsule that remains is a frequent complication, and one that is to be dreaded, for secondary operations are uncertain and dangerous."

I believe it is positively dangerous to fix the eye with fixation forceps while attempting to expel the lens. The patient may at any instant become uncontrollable, and a sudden movement of the eye while thus fixed is very liable to cause the loss of vitreous.

Dr. H. Knapp, who reported 100 cases with the best results ever given, says: "The subsequent division of the capsule has, therefore, played as important a part in this series of operations as in the former ones where iridectomy was made and the capsule opened at the periphery. If we wish to give our patients the highest degree of visual acuteness obtainable, we have either to split the capsule later, or remove a piece of it during the first operation." Of the 100 cases referred to, Dr. Knapp performed discision of the capsule subsequent to the extraction in 54 cases, and in no case was the vision made worse.

Removal of Lachrymal Gland.

Dr. DeWecker, of Paris, has removed the lachrymal gland in 25 cases for the cure of persistent lachrymation. In all the cases there was complete cesssation of lachryma tion, while the lubrication of the cornea was still perfectly performed.

Sclerotomy for Glaucoma.

Dr. Snellen, of Utrecht, advises sclerotomy in all cases of glaucoma, and says that excision of a segment of the iris is of only secondary importance.

Dr. Snellen is a high authority, but the results of practice in this country do do corroborate his experience. Iridectomy is almost a specific for acute glaucoma.

Conjunctivitis from the use of Cocaine.

It is getting to be quite customary for physicians to prescribe a solution of cocaine to be instilled in the eye by the patient at his own discretion. This leads to the indiscriminate use of drugs by the laity, and is bad practice on the part of the physician. Dr. Kipp, of Newark, N. J. reports (*Med. Rec.*,) three cases of follicular conjunctivitis that were clearly attributable to a continuous use of cocaine for some weeks. Dr. Mittendorf, of New York, has reported three cases in which acute conjunctivitis was produced by this drug.

Division of Opacities of the Vitreous.

Dr. Charles Stedman Bull reports 15 cases (*Med. Rec.*, Sept. 1, 1888) in which he divided membranous opacities in the vitreous. The operation was performed by plunging a keratonyxis needle through the coats of the eye at a point posterior to the ciliary process and between the external and inferior recti muscles. The results in some of the cases were very gratifying indeed. Dr. Bull says:

"Of the 17 operations done on 15 patients, 14 gave decided improvement in the vision, and three proved failures. In no case was there any loss of vision from the operation. It seems proper to conclude that the operation is a suitable one in certain cases, and is justified by the results obtained. It would seem wise to wait in any case until all inflammatory symptoms have long subsided before attempting to divide the resulting obstructing membranes, no matter whether caused by hemorrhages into the vitreous, or by a hyalitis, the result of choroiditis. The eye should be absolutely free from all irrita-

tion before attempting any such surgical interference.

Tenotomy for the Correction of Heterophoria, with Results.

A paper on this subject was read by Dr. David Webster, of New York. Fifty-seven operations had been done on forty patients. A slight over-correction had been aimed at, and mostly obtained. The tendon was divided from the center each way, and always completely divided just at its insertion. Of four epileptics, none had been cured, though two cases were thought to have been somewhat benefited. In three hysterical cases strikingly good results had been obtained. Most of the operations had been done for muscular asthenopia. The author had reached the conclusions that tenotomy should not be done for heterophoria causing no inconvenience; very slight degrees might require tenotomy; but all other methods of treatment should be tried first. It should be performed under the influence of cocaine, and the eyes tested from time to time, to determine when a sufficient effect had been produced. In judiciously selected cases the results had been quite as good as those obtained with most other surgical procedures. Dr. H. D. Noys had found apparent vertical deviations of the visual axes to be due to asymmetrical development of the bones of the face and orbit; and that in these diviations both prisms and tenotomy had failed to give an ultimately satisfactory result. He would never do a tenotomy for muscular insufficiency unless the muscle to be divided showed a distinct surplus of power.

When to Attempt to Correct Convergent Strabismus.

Dr. A. R.Parker, of Cleveland, (*Clev. Med. Gaz.*) says: Operations for strabismus are made much less frequently than formerly. If cases are seen early, it may be a question whether it is necessary to make an operation.

I think the following observations are in accordance with the experience of ophthalmic surgeons during the past year.

1. If the squint is alternating and the vision fairly equal in both eyes, it is seldom necessary to operate. A full correction of the ametropia will usually result in cure of the squint.

2. If the squint is fixed in one eye but the vision of the squinting eye good, the same rule should be observed, excepting that atropia should be instilled into the working eye occasionally, and possibly a patch kept over it and orthopedic exercise indulged in as described by Landolt.

3. If the squint be fixed in one eye and the sight very defective and no improvement after patient trial with lenses and covering of good eye, only a cosmetic result can be attained. The operation should be performed any time after the sixth or eighth year.

4. If the squint be fixed in one eye and the vision of this eye is slightly defective, it is possibly undergoing deterioration from disuse, and should be carefully exercised, watched and tested. If the deterioration of vision appears to be increasing, an operation should be performed at once.

[Dr. D. B. St. John Roosa, of New York, has worked for years in trying to determine the effect that disuse has on squinting eyes. He says he is still working. It has long been known that the vision of the greater number of squinting eyes is very much lower than normal. But it is not yet known whether the lowered vision produces the squint or vice versa. It is highly probable that in many cases of anisometropia the patient squints one eye to prevent confusion of images. A case came under my observation, a young lady, in which the eyes were perfectly straight except when the patient looked at near objects, and then the right eye quickly turned toward the nose at least 45°.]

Dr. Goodmann, of Philadelphia, operated on a Morgagnian cataract in which no nucleus was found.

Removal of Opacities of the Cornea by Means of Galvanism.

Dr. C. H. H. Hall, of Yokohama, Japan, re-

ports (*Can. Med. Rec.*) that he has obtained marked good results from the galvanic current in treating opacities of the cornea. In two cases, maculæ that could be seen at a distance of several feet have melted away till only a trace of them is left.

He says: "Of the seven other cases under treatment, it will suffice here to say that they varied in size from that of a millet-seed to the whole circumference of the cornea, from a nebula to a dense white leucoma, and in duration from forty days to forty-eight years.

All of these cases are steadily improving, two of the most extensive maculæ being merely fragmentary remains of the original, while the corneæ elsewhere are quite clear. The rate of disappearance seems to depend chiefly upon the size of the opacity, which, like a heap of snow, melts away from the periphery towards the centre, the oldest but little more slowly than the most recent.

The method I have employed is as follows: One pole of the battery in the palm of the hand, the other upon the closed eyelids, ordinary sponge-covered electrodes being used. If the eye is or becomes in the least congested or the seat of pain, the anode should be placed there; otherwise the cathode should be used as the therapeutic pole, its action being more rapid, apparently. The strength of the current should not exceed three milliampères, and with sensitive eyes a strength of two milliampères is better. The sitting should not extend beyond three minutes, unless the eye shows, after trial, unusual tolerance of the current; a five minutes' sitting sometimes irritates the organ. An application was made daily at first, but this was found to be too frequent—productive of irritation. Sittings are now held every other day without discomfort in any other case.

A galvanometer and a smoothly-working galvanic battery are indispensable in this treatment. I am using Barrett's milliampèremeter and chloride-of-silver battery."

There can be no question that much can be done in causing recent opacities of the cornea to clear up, but I am not inclined to think that dense leucoma of long-standing are amenable to electricity or any other treatment. Some years ago a French surgeon claimed that he had removed senile lenticular opacities by galvanism. How easy it is for an enthusiast to be mistaken as to his results.

ORIGINAL ARTICLES.

PERFORATING ULCER OF THE DUODENUM.

BY J. M. EMMERT, M. D., ATLANTIC, IOWA.

Read before the Mississippi Valley Medical Association, in St. Louis, September 26, 1888.

My object in presenting this paper is to place upon record another case of simple round or perforating ulcer of the duodenum.

The case was an obscure one during the time I was the patient's attending physician, and was only cleared up by the post-mortem. It being the first case of the kind met with in my practice, I became much interested in the subject and began a thorough search of all the medical literature at my command.

I was surprised to find almost nothing on the subject in some five or six hundred of the best medical journals that had been accumulating for the last fifteen years, and a very meagre description in the text books and special treatises upon the intestines; in fact many text books do not mention it at all, while others give a very cursory description in connection with ulcer of the stomach.

It seems to me that this is unfortunate, because it produces confusion in attempting to make a dtfferential diagnosis, the clinical history of the two diseases being quite different.

If the description of the case I am about to give will help to clear up the obscurity surrounding the majority of these cases the object of this paper will have been attained.

Mr. J. P. G., æt. 55, was born in Bucks County, Penn., of German parentage; his early life was spent in out-door work; after the age of 25 was mostly engaged as book-

keeper, clerk and bank cashier; health good until 25 years of age, when he had the first attack soon to be described; he had the attacks two or three times a year during the balance of his life. From the time I became acquainted with him, fourteen years ago, he always presented the appearance of a person who had considerable digestive trouble, the skin being of a dark jaundiced hue. He was quite active and fond of field sports, and always felt better after one of these excursions. I never knew him to drink to excess, although he liked a glass of beer.

The attack, or spell, as he termed it, mentioned above, occurred thirty-two years before his final sickness; it came on suddenly; he felt faint, had considerable nausea, and pain that was difficult to locate. It lasted about an hour and passed away. One year from that time he had another attack of the same kind, and this continued to occur from two to four times a year the balance of his life. In the attacks during the last years of his life, he would become jaundiced and vomit excessively.

The attacks during the last few years would invariably come on about the middle of the afternoon, last one or two hours, then pass away, leaving him quite weak; he complained more or less of an ill-defined pain, sometimes directly after meals, and sometimes not for several hours after eating; he said he could never locate exactly the pain, but it was of a sickening, gnawing character; this was especially so if he endulged in rough or fibrous articles of food, such as cabbage, turnips or corn. His bowels were usually constipated, with occasional attacks of diarrhea; there never was any hemorrhage that he knew off. During the last year or two of his life his trouble increased. He talked considerably about his disease, and at times became depressed in spirits.

August 23, 1887, I was called to see him for one of his bilious attacks, found him with a temperature of 100°, pulse about 90, tongue coated brown, and some pain in gastric and right hypochondriac region; he had been constipated some days, so I ordered a cathartic. At four o'clock next morning I was hastily summoned to his bedside, and found him sitting up in bed, leaning forward, holding his abdomen, suffering intensely, so much so that he could not lie down, nor even speak. He soon passed into a state of collapse. His wife then informed me that he had vomited several times during the night, and in the last attack of vomiting which took place but a short time before, the severe pain suddenly came on. He lingered until six o'clock next morning, when he died.

Autopsy twenty-four hours after death.

On opening the abdomen there was found violent peritonitis and some effusion in the peritoneal cavity. In the duodenum, close to the pylorus was found an ulcer, also one on the posterior horizontal portion.

Each of these ulcers was about three-eighths of an inch in diameter. The ulcers had a punched-out appearance, the walls being perpendicular, the ulcer cavity being as large at the bottom as at the top. The walls or sides of the ulcers were perfectly smooth, showing no ragged or projecting points; the floor of each ulcer was composed of the peritoneal coat only. In one this coat was torn clear across the bottom of the ulcer; in fact, it was not a perforation but a tear from violent retching.

You will notice two anomalies in this case: first, the location of the ulcers, a large majority being located in the superior horizontal portion of the duodenum. In the forty-seven cases collected by Krauss, only two were situated in the lower horizontal portion and none on the side.

Second, the appearance. A large majority of the cases as given by the different writers on this subject present a funnel or crater-like appearance, the bottom of the ulcer many times not being more than one-fifth as large as the mucous opening.

In the case just presented the ulcers had the appearance of being punched out, they were clean cut, and the sides and floor completely organized and smoothed off, showing that they were of long existence.

These ulcers are undoubtedly chronic in

their nature, the necrotic process going on sometimes for years.

All acute ulcers, as from burns and other causes should be eliminated in a study of the round or perforating ulcer.

The pathogenesis of the perforating duodenal ulcer is the same as that of the stomach; it is a true peptic ulcer.

The first pathological condition in the origin of this ulcer, either in the stomach or the duodenum is an interruption of the circulation; Virchow, Muller and Rindfleisch have established the fact that either thrombosis or embolism of the small arteries, stasis of the venous circulation, or an extravasation of blood in the mucous or submucous tissue causes the death of a circumscribed portion of the duodenal wall.

The second stage in their production is the action of the gastric juice upon the necrosed tissue; the acid secretion of the stomach comes in contact with the necrosed tissue before it meets the pancreatic juice and bile and undergoes an alkaline reaction.

This acid fluid acts as a solvent of the devitalized tissue, which gradually breaks down until the organ is perforated, or, as Fox and others have demonstrated, cicatrization takes place, and the danger is stayed, or, as in my case, the pathological process is arrested only when the peritoneal coat is reached, to be at some future time mechanically ruptured.

Prof. W. W. Johnson, of Washington, D. C., in a most excellent article in the *Amer. Jour. of Med. Science*, asks the question "Is the diagnosis of duodenal ulcer possible, and can it be differentiated from gastric ulcer?"

That it is not possible to make a correct diagnosis in many cases one has only to study the cases on record. In many cases the trouble was not suspected, and was only discovered by the post mortem. The first case placed upon record (by Robert) was that of a young man who had no symptoms except vague pains in the epigastric region for sometime, finally nausea, loss of appetite and general malaise.

In Osler's nine cases there are four with little or no antecedent history. E. B. Gray reports a case where the only history was that for two years previously he had pain across the pit of his stomach and through to th loins.

This patient died suddenly from hemorrhage caused by ulceration of the pancreatico-duodenal artery.

A number of cases presented no symptoms except those of indigestion. Wilson Fox says "the symptoms characteristic of this disease are pain, vomiting, hemorrhage and disturbance of the digestion." When we come to analyze these cases we find that very few present all of these symptoms. We can not always rely upon the diagnostic symptom, pain, because sometimes there is almost a complete absence of it, and where it does exist, in some cases it is so vague or ill-defined that it is almost impossible to locate it.

In my case the patient could never definitely locate the pain. Prof. Johnson's case, Bucquoy's cases and cases of others which have been placed on record, located the pain in the right hypochondrium, with tenderness.

This of course would be a characteristic symptom, but not more than 113 of the cases that I have been able to find, presented this diagnostic symptom; in one fifth of the cases collected by Krauss, where there was perforation or hemorrhage, there was no noticeable pain. Wilson Fox gives a number of cases in his work on diseases of the intestines where pain was a prominent symptom but every one of them was complicated with some disease of the liver or adjacent organs, and should consequently be excluded. Where pain over the duodenum is a prominent symptom it is one of the best differential diagnostic symptoms between gastric and duodenal ulcers; the pain in ulcer of the stomach coming on almost immediately after eating, while in ulcer of duodenum it does not commence for an hour or so after eating.

The reason for this is, of course, very apparent.

Hemorrhage from the bowels is another symptom considered as diagnostic. Yet we find that it is absent in a majority of cases; Wilson Fox says that it occurs in about one-

third of the cases; Johnson says that it is the symptom upon which the most reliance can be placed; Bucquoy lays much stress upon it. Of 63 cases collected by Chovosak death occurred from hemorrhage in fourteen; no mention is made of number of hemorrhages where death did not occur.

There never was any hemorrhage in my case, to the knowledge of the patient or his family.

When hemorrhage does take place, the blood may be vomited but is much more likely to be passed by the bowels; when it does pass in this way, it always has a thick tarry appearance.

Johnson says "by the appearance of the blood passed alone, we can diagnose the disease."

Vomiting is a prominent symptom in some cases; the matter vomited is usually of a bilious character; if soon after a meal it is principally the injected matter; sometimes, as in Gray's case and several others,a large quantity of blood is thrown up.

In my case vomiting always took place during the severe attacks of enteralgia; a noticeable feature of this case was the jaundiced appearance during and following these attacks, although no disease of the liver was found.

Wilson Fox alone mentions this symptom.

Symptoms of indigestion are almost always present; constipation is not so frequent as in gastric ulcer; there may be constipation alternated with attacks of diarrhea. In making a differential diagnosis between gastric and duodenal ulcers, sex and age would be an important factor; the gastric ulcer being most frequent in females, and the duodenal in the male, in fact very few cases of duodenal ulcer in the female are recorded.

Out of Krauss' 64 cases, 58 were men; and the statistics of other observers are in about the same proportion.

Duodenal ulcer is most common between thirty and forty; gastric ulcer between twenty and thirty.

The treatment is about the same as for gastric ulcer; rest is essential; the food should be bland and unirritating, such as milk and broths.

It is doubtful whether any medicine has much effect in producing cicatrization which is the object to be attained if possible.

MASSAGE IN EYE-DISEASES.

BY C. BARCK, M. D.

Read before the St. Louis Medical Society, Oct. 13, 1888.

The value of massage in many chronic diseases is now generally acknowledged. After a long and hard struggle it has won its place as a scientific treatment based on physiological principles. Whilst its excellent results especially in diseases of the locomotor apparatus, muscles, joints, etc., also in many gynecological diseases, are well known to the profession, its application to diseases of the eyes seems to be rather neglected and not appreciated as to its real merits. Indeed I find in the literature of the last twenty years only two communications relating to this subject, one by the French oculist Damalise in the Annales d' Ophthalmologie '81, the other by Dansiger, German Med. Gazette '86. In the text-books it is dismissed with a few words or not mentioned at all. The latter communication aroused my interest and within the last two years I have given the method an extended trial in all suitable cases. These having been rather numerous I feel justified in forming a personal judgment on the value of the method, which has more than met my expectations.

Massage is of course applicable only to external eye-diseases, mainly of the cornea, the sclera and conjunctiva. After a few words on the general effect of massage and on the manner of its application to the eye, I will mention briefly the classes of diseases in which I found it of especial benefit.

The effect of massage is to stimulate the nutrition of the organ, to accelerate the movement of blood and lymph in it, and thereby to bring forth resorption of old infiltrations and exudations. For this purpose it is conceded to be superior to any other means at

our command. If we consider, that the cornea is a dense firm tissue without blood vessels in the normal state and that it depends for nutrition and repair entirely upon the slow circulation of the lymph, we should expect a priori, that massage is especially suited for this tissue. The sclera too is very scantily provided with blood-vessels.

There is no doubt that the different ointments generally in use exert their beneficial influence partly by the same means. If an ointment is put into the conjunctival sac and the lids closed for a length of time, the eyeball moves and rotates below and so a sort of mild massage is produced, not as efficiently as if applied methodically. It is recommended by some to rub with the tip of the finger on the closed upper lid, performing rotatory movements. This method is painful and inferior to the other, which makes use of both eye lids and which I used exclusively. The thumb is applied to each eye-lid, about two lines distant from its free margin, so as to get a good hold on it: then the eye-lids are opened and closed alternately in quick succession, and at the same time a mild pressure is exerted. In corneal diseases the patient is directed to look down, so that the lower eyelid is the one mainly acted with. The manipulations are to be continued for not less than 4 to 5 minutes,(with consultation of the watch.) Ointments may be first applied: I used mostly pure vaseline, yellow oxide of mercury ointment 2-10% and iodide of potassium 5-10%.

The first large class of cases are opacities of the cornea in its varieties, the remnants of inflammatory processes, ulcers, injuries, etc. These cases were and are still frequently dismissed by the physician, when they seek aid, with the remark that nothing could be done for them. I confess that I did so myself before the use of the massage. Since, my views have changed considerably. All those cases can be benefited. The opacities will clear up and vision, impaired by them, will improve, as it did in all cases, often surpassing my expectations. Abstaining from enumerating them, I will mention one, which is under my treatment at the present time. The case came to me on account of phlyctenular keratitis of the left eye. In the right eye the whole cornea was opaque in consequence of repeated attacks, the infiltration reaching quite deep into the tissue. I commenced massage and the result was so gratifying that it was continued after the recovery of the left eye. The vision increased within ten weeks from counting of fingers to $^{20}/_{70}$, the centre of the cornea especially clearing up to a remarkable degree.

Of the deeper-seated affections of the cornea, I will call your attention to interstitial keratitis in consequence of hereditary syphilis. I treated two cases of this kind, and have the impression that the infiltration was resorbed quicker than is usually the case, this disease extending as is known over months. Here the iodide of potassium ointment, 10%, is especially to be recommended. Care must be taken, as a decomposition of this ointment is likely to set in, especially in warm weather, the iodine becoming liberated. The application is then very painful and may be followed by inflammation. The decomposition is seen by the red-brown color which the ointment or a portion of it assumes.

Also in more acute diseases, especially phlyctenular or scrofulous ophthalmia in its various forms, the use of massage is beneficial and seems to make the recovery more rapid in connection with our usual treatment than by this alone. Besides I try by its means to prevent relapses which so frequently occur, continuing it for a longer period after recovery, once a week. A number of little patients who were subjected to attacks of phlyctenular ophthalmia two or three times a year regularly, have been saved from further attacks by this procedure.

Of episcleritis I have recorded two cases, one consequent on lues; they led to recovery in six and three weeks respectively, which may be regarded a relatively short time.

I will close here the enumeration of cases. I have received the impression that massage, if regularly and methodically employed, yields results not attained by any other treatment, and recommend it earnestly to the profession.

A CASE OF AORTIC ANEURISM.

BY WM. TOWNSEND PORTER, M.D.

Read before the St. Louis Medical Society.

The patient from whom this specimen was taken presented himself in my clinic at the St. Louis Medical College, July 21, 1888.

He was 59 years old and had been a hod-carrier for many years. Two years ago he was in bed 10 days with inflammatory rheumatism. His health had been otherwise very good. Until the beginning of his last illness he drank a great deal of beer while at work. He denied having venereal disease.

On May 10, he was overheated, and thought that he had slept in a draught. The next morning he could hardly speak for hoarseness. This hoarseness had since grown worse. In this month, also a shortness of breath, which had troubled him some since January, became so bad that he could not climb more than two ladders with his hod. Later in the summer the distress was less. At no time had he dyspnea, except upon exertion. There had been some pain in the shoulders which he attributed to rheumatism. Expectoration was very difficult.

This information was communicated with painful slowness. The patient's voice was a hoarse monotone, and almost wholly whispering. Every word was forced out with much loss of breath. As a consequence he was compelled to pause after every few words and fill his lungs by a long inspiration, which was accompanied by a hoarse rattling sound. After talking some time, he complained of feeling tired about the lower ribs.

On examination with the laryngeal mirror, the vocal bands and the mucous membrane of the larynx could be seen to be very much congested. The left vocal band remained motionless on phonation. A more satisfactory examination was made a few days later. The congestion had very much diminished under local applications of the tincture of the chloride of iron and glycerine. The left vocal band was in the cadaveric position, half way between adduction and abduction, and immovable on phonation and respiration. I could not be certain that it moved inwards on forced inspiration. When a vocal sound was made, the right vocal band came a little beyond the median line. Its motions were sluggish. The left arytenoid cartilage was displaced forward and inward, and seemed to tremble occasionally. The epiglottis was erect and normal.

A sphygmographic tracing from each radial artery gave a result in all respects alike. The rate was 85 per minute, and the curves showed increased arterial tension. Thickening of the radial artery could be felt, and atheromatous patches could be seen in the ranine artery.

The cardiac, splenic and hepatic areas of dulness were diminished. The heart sounds were pure, but the second sound was accentuated. Over the lungs, especially over the left apex, the pitch of the percussion sound was rather too high, but the resonance was not noticeably impaired. There were signs of emphysema. Expiration was prolonged. Over the entire chest, but especially posteriorly were heard many sonorous and sibilant rales. Enlarged anterior intercostal veins could be seen in the first and second intercostal spaces on the left side.

The diagnosis was a made of complete paralysis of the left, and partial paralysis of the right recurrent laryngeal nerve, from pressure, either of enlarged bronchial glands, or of aneurism.

Local applications were continued. The patient took iodide of potassium in increasing doses, and received one fifteenth grain of strychnia hypodermatically once a day. Slight improvement followed. The local astringent applications to the larynx were discontinued August 14. On that day and several times in the following week, I applied the galvanic current, placing one electrode on the neck,and the other on the arytenoideus posticus muscle. The current used was four milliamperes. The internal branch of the superior laryngeal nerve was also galvanized at the point where it runs across the

pharyngo-laryngeal sinus, but the irritability of the parts was such that the effect upon the epiglottis could not be clearly recognized.

About this time the percussion resonance began to be impaired over the left apex. About August 21 I showed the patient to Dr. W. C. Glasgow, whose skill in the diagnosis of such cases is well known. Dr. Glasgow thought aneurism was the probable cause of the pressure, believing that this apical dimiution in resonance, and the accentuated second sound were symptoms of the aneurism. He also thought that a "chamber-like" resonance of the second sound could be heard in the left second intercostal space near the sternum.

In another week the symptoms permitted of positive diagnosis. There were impaired percussion resonance in the above mentioned region; accentuated second sound heard in an abnormal situation; faint systolic heave on deep bi-manual palpation; and indistinct systolic murmur in the supra-sternal fossa and left carotid. The expectoration began to be bloody.

The rest of the story is soon told. The patient grew slowly worse and died Sept. 29. For several days before his death he had alarming paroxysms of dyspnea, and could scarcely swallow even liquid food. The autopsy disclosed an aneurism of the aortic arch which had burst into the esophagus.

The grounds on which my opinion of incomplete bilateral paralysis was based are these In paralysis of only one vocal band the voice is impure and rattling, and readily breaks into falsetto. But this alteration is not evident, except on the production of loud, high-pitched sounds. The change is much less marked than one would *a priori* suppose. In complete paralysis of one cord, and partial paralysis of the other, there is, in Ziemmsen's graphic phrase, a deep, monotonous, impure, almost roaring voice.

In unilateral paralysis vocal effort requires an unusual expenditure of breath, which, however, may entirely escape notice, in incomplete bilateral paralysis the vocal band can only be thrown into sound-making vibrations by a very forcible expiratory blast. The "phonative loss of breath" is evident to the most careless observer.

These variations in the vocal sounds, and this abnormal respiration find their explanation in the altered relations of the vocal bands. The voice is but slightly changed in unilateral paralysis, because the cord on the healthy side is dragged across the median line and made more than usually tense, and thus partially compensates the loss of function in its fellow. [The doctor illustrated this and subsequent points by drawings on the blackboard]. The gaping of the glottis, which is caused by the failure of the paralyzed cord to adduct when speech is attempted, is in this way made much less, the escape of air is limited, and the cords are thrown into sound-producing vibrations. The increased tension of the vocal band on the sound side partially balances the loss of tension on the other. So actively may the lateral crico-arytenoid contract that the corniculum of the sound side may pass over that of the paralyzed side, usually passing in front of it. Turck in one case saw the cartilages of Wrisberg overriding, and the compensating cord has been known even to lie upon the other, when a high note was attempted.

Incomplete bilateral paralysis presents a different picture. If, as in the case reported this evening, one vocal band is completely, and the other partially paralyzed, there can be no such compensation as in the unilateral affection. The glottis remains abnormally open in spite of the most vigorous efforts at phonation. High notes are consequently an impossibility, and it is for this reason that the voice is deep and monotonous. The widely separated and loosely stretched cords yield sound vibrations only when set in motion by powerful currents. Hence the strong expiratory effort, and the great loss of breath. The tensors of the vocal bands are unequally affected, the notes produced must, therefore, differ in pitch. The simultaneous occurrence of these sounds of different pitch makes the voice coarse and rattling. No one will deny,

I think, that the case under discussion is something more than unilateral paralysis.

It will be remembered that the clinical history mentioned the presence of occasional twitchings of the left arytenoid cartilage. These twitchings illustrated very beautifully a certain pathological feature of laryngeal paralyses. The arytenoideus posticus is, as every one knows, supplied by a filament from each recurrent laryngeal nerve. When one of the recurrents can no longer do its office, volitional and reflex efferent impulses affect but half the muscle, and evoke feeble twitchings instead of vigorous contractions.

The specimen was dissected by Dr. W. N. Beggs, who will demonstrate it to the Society.

PHIMOSIS has generally been considered a disease peculiar to males, as much so as orchitis or enlargement of the prostate, but, stimulated no doubt by the agitation of the question of woman's rights, a champion has appeared to claim for the gentler sex an equality with men in the possession of a tight prepuce. This writer, who contributes a paper to the *Medical Era*, says that the hood or prepuce of the clitoris, which should normally be freely retractable is often strongly adhesive, and that smegma collects under it, causing irritation and the same train of distant reflex phenomena attributed to the same condition in the male. It is also supposed to be a frequent cause of masturbation. Breaking up the adhesions under cocaine, and, if necessary, stretching or slitting up the prepuce usually gives relief.—*North-Western Lancet.*

THERE is a tradition among the extremely ignorant of New York City that when a man contracts a venereal disease he can rid himself of it by transmitting it to some one who has never had the disease. A practicing physician in that city told me that he had been called on to visit two girls, one 5 and the other 6 years of age, who subsequently died of syphilis, with which they had been inoculated by beastly men.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, NOVEMBER 3, 1888.

MARGINAL KERATITIS.

The Paris correspondent of the *Medical Times* writes of the pathology and treatment of Kerato-conjunctivitis as follows:

"This form of ophthalmia is the common every-day type seen in scrofulous patients, and M. Augagneur, of Lyons, finds that the rhinitis that is seen with it is an active cause of the complaint. He says the rhinitis is an inflammatory lesion caused by microbes: as pus is always found, the virulent principle passes from the nose into the lachrymal passages and from there penetrates the conjunctival cavity, inoculates itself there and passes into the cornea. From this new pathological view of the matter he formulated a treatment which he justifies by a number of reports of successful cases."

M. Augagneur's experience has certainly been a peculiar one. The greater number of the cases of this disease that I have seen, had no rhinitis, and many of those which had rhinitis had a mucus discharge, but no pus, from the nose.

The disease is usually attributable to malnutrition, and correction of diet is all that is necessary in many cases to effect a cure.

The intimate sympathy that exists between the eye and nose has long been known, the sensory nerve that supplies the tissues of the orbit also supplies the nose. It is no wonder then, that rhinitis aggravates eye troubles, and a proper treatment of the former includes attention to the latter.

I have found that a solution of tannic acid

in glycerine, one dram to the ounce, is an admirable remedy for rhinitis. I apply it freely with a little cotton wrapped on the end of a probe. It has a disagreeable odor, much like that of an old tobacco pipe.

I saw a case, a young lady, about 22 years of age, in which the late Dr. Agnew effectually prevented a return of the disease, by doing a cantholysis on each eye. The phlyc tenules had appeared continuously for many months.

I have never seen a case that would not yield to the yellow oxide of mercury ointment or the insufflation of calomel.

The surest way to prevent a recurrence is to improve the patient's nutrition.

The Next Meeting of the American Medical Association.

The *A. M. A. Jour.* says that the chief hotels in Newport, R. I., will not be open by the first Tuesday in June next, nor will the summer arrangements for boat excursions be in order. We fully agree with the journal when it says that the committee of arrangements should not hesitate to change the time of the next meeting of the A. M. A. to the last Tuesday in June, at which time Newport will be in readiness to accommodate her guests.One of the objects in selecting this point as a place of meeting was to add a charming excursion for the members of the West, in addition to the scientific feast.

The State Medical Society of Rhode Island, has already taken steps to cooperate with the local committee of arrangements in making the meeting one of the most pleasant and successful ever held.

Cantholysis.

Dr. J. E. Engstad in writing on Prophylactic Treatment in Eye Diseases (*Med. Age*, Sept. 25,) says that in the treatment of conjunctivitis in children, the safest and best treatment is "myotomy of the muscularis orbicularis palpebrarum,at the external canthus. A small centimeter cut is only a little better than a leech. The correct procedure is to cut twice, one cut upward and outward, and one in a downward direction, so as to cut both attachments of the muscle. By a small cut outward the attachment is only wounded."

This procedure is altogether unjustifiable. It will disfigure the eye most terribly. The late Dr. Agnew, some years ago, described an operation known as cantholysis, by means of which the lids can be made perfectly loose. The operation consists in dividing the external canthus to the extent of two or three lines, introduce the blades of a sharp-pointed pair of scissors into the wound a little obliquely upward, the outer blade passing just beneath the skin, the inner one just beneath the mucous membrane, this will include the external cantha-ligament between the blades; holding the upper lid with the forefinger and thumb of the other hand, the blades of the scissors are closed and the ligaments can be felt distinctly to give away. Two or three sutures are then introduced, joining the cut edge of the conjunctiva with that of the skin. Care must be taken to divide the canthus directly outward, as any deviation up or down will disfigure the eye. If the operation is done carefully very little hemorrhage will occur. If the tissue of the upper lid be "chopped up" in hunting for the cantha-ligament, extensive hemorrhage may result. I have done the operation a number of times with no anesthetic except cocaine locally.

Glaucoma from Astigmatism.

Dr. S. Theobald, of Baltimore, says that when an astigmatic eye has its lowest refraction in its vertical meridian, or nearly so, there is more asthenopia, headache, and likelihood of pathological changes in the eye than when the lowest refraction is in the horizontal meridian, or nearly so. He thinks the former variety likely has something to do with the production of glaucoma in some cases.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

The meeting of the Southern Surgical and Gynecological Association was not held in Birmingham on Sept. 11, 12, and 13, as announced but has been postponed till the first Tuesday in December, owing to the quarantine against yellow fever.

THE *Med. World* says that half a grain of bycyanide of mercury in an ounce of water forms an excellent gargle for persistent syphilitic ulcer of the tongue. If the internal administration of bichloride of mercury and iodide of potassium pushed to their physiological effects does not improve persistent ulcers of the tongue, it is highly probable that they are not due to syphilis.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Oct. 15, 1888. The President, YOUNG H. BOND, M. D., in the chair; J. B. PRICHARD, M. D., Secretary.

DR. BEGGS.—The specimen from Dr. Porter's case was given to me a few hours after its removal from the body. The specimen had been placed in alcohol and therefore some of the pathological changes could not be determined; others, however, and those the most interesting, were easily seen. I will first refer to the fact that some few organs not mentioned in the history of the case were found to be in a state of pathological change. For example, the spleen was decidedly anemic and there were remains of a perisplenitis; the liver was somewhat atrophied as was also the spleen, and there were remains of peri hepatitis; the kidneys were in a state of decided parenchymatous nephritis, the fatty degeneration being evident to the naked eye. The surface of the kidney was somewhat irregular, due to the shrinkage after the preceding swelling. The capsule was slightly adherent, a piece of the cortex coming away when I attempted to remove the capsule of the kidney.

I regret very much that the pathological changes in the kidney can not be demonstrated. It is now two weeks old and has been kept in chloral hydrate in order to preserve it in a lax condition, and to avoid the shrinking which occurs when alcohol is used. The heart was slightly hypertrophied and there were remains on the surface of an old pericarditis.

So far as I could determine there were no changes in the heart muscle itself. There was, however, marked endocarditis, though not recent, and a very marked endo-arteritis, there being spots of fatty degeneration and calcification of the walls of the aorta. Just below the beginning of the innominate artery commenced the aneurism which is some four inches in length; three or three and a half inches in a vertical direction, and two and a half antero-posteriorly; it is an irregular ovoid in form, belonging to the class of saccular aneurisms.

The aneurism, in its growth, pressed against the trachea and osophagus, compressing them, causing more or less stenosis in both. The anterior wall of the trachea is very much thinned and is bulged inwards when seen from the lumen of the trachea; it was almost perforated, there being in fact a slight perforation which I think was caused post-mortem. There are also, as can be seen, some slight remains of chronic trachitis and chronic bronchitis.

The chief interest, aside from the aneurism itself and directly connected with it, lies in the osophagus, which was somewhat stenosed by the pressure. In three places there is a break of continuity in the osophageal wall, these breaks being connected with the rupture of the aneurism, which burst directly into the osophagus. The immediate cause of death was the hemorrhage into the osophagus from the aneurism. As a minor matter, I will state that below the aneurism, perhaps four inches, is a diverticulum caused by traction, there being immediately in front of the esophagus a bronchial gland, which at

some previous time in the patient's history had been swollen and while swollen had become firmly adherent to the right bronchus. When shrinkage occurred after the subsidence of the acute inflammatory stage, the bronchus not being very yielding and the osophagus being yielding, the osophageal wall was forced to follow the bronchial gland; therefore we have a diverticulum about a half an inch in diameter.

I found difficulty in explaining the partial paralysis of the right cord, as the right recurrent laryngeal nerve was not subjected to pressure so far as I can discover. It is possible there would be pressure caused by the displacement on account of the growth of the aneurism, but on removal of the parts from the body it would not be possible to demonstrate this. The left recurrent laryngeal nerve, however, passed directly between the aneurism, the osophagus, and the trachea embedded in firm connective tissue; the wall of the aneurism and the walls of the osophagus and trachea being rendered firmly adherent to each other by dense connective tissue. Here lies the explanation of the paralysis of the left vocal cord—the recurrent laryngeal nerve being strongly compressed by the connective tissue.

Dr. J. G. Mulhall.—Some three years ago I presented to this society a specimen of thoracic aneurism, with a triple dilatation, and it was very interesting on account of exhibiting the different forms of dyspnea that may occur from the presence of aneurism. We may have dyspnea laryngeal, dyspnea tracheal, and dyspnea pulmonary. In the patient to whom I refer there was present all three of these forms of dyspnea, and the specimen showed very prettily why these three forms existed in the same patient. Dr. Porter was not fortunate enough to see this patient in the earliest stage, but as I said in my paper which I read at the time I presented the specimen, one of the first symptoms of thoracic aneurism may be spasms of the glottis. It is very easy to understand why this may be when we look at this specimen. Certainly the first pressure on the recurrent laryngeal nerve will not produce paralysis; it simply irritates and the expression of that irritation will first be seen in spasm more or less marked. The patient's attention is probably not directed to the seat of the difficulty as it is on one side only; but sometimes pressure on one recurrent laryngeal nerve produces symmetrical symptoms in the larynx. For instance, pressure on one recurrent laryngeal nerve may not only induce spasms of the muscles on the side to which it is distributed, but to the muscles on the other side of the larynx. This paralysis of the larynx is usually an adductor spasm and of course there may be attacks of laryngeal dyspnea as was exhibited in the case I presented. Another cause of dyspnea as Dr. Beggs has mentioned in this case was the pressure on the trachea; the third cause of dyspnea, which did not exist in this case, but did in mine, is the result of pressure on the trunk of the pneumogastric nerve by an aneurism in the innominate artery; this induced suppuration of the base of the right lung.

Dr. Porter has shown us very nicely on the board a very interesting practical point, that is, that a patient may have paralysis of one of the vocal cords without any subjective symptom. I have seen such a case. Perhaps I can make this a little plainer. We will assume this to be the median line of the glottis this the limit of extreme abduction, this the limit of adduction. When the cord is paralyzed from obstruction of the recurrent laryngeal nerve, we will find it in the cadaveric attitude, midway between abduction and adduction.

How is it possible for a patient to have such a valuable sign of thoracic aneurism without subjective symptoms? I make this point in order to make another one, that is, that every case of suspected chest disease should be examined with the larygoscope. We may thus find a complete paralysis of the left vocal cord without subjective symptoms. The doctor has explained why a man may have almost a normal voice and still this paralysis be present, for the reason that the healthy cord is able to pass over median line,

it is able to cross over to the median line and meet its paralyzed fellow and fulfill the conditions necessary for phonation. I have seen cases where there was complete paralysis of one cord, where there was no hoarseness and no dyspnea, because the larynx was in a condition for perfect breathing.

Thoracic aneurisms may be one of the easiest things in the world of diagnosis, but, on the other hand, many patients under the observation of competent men have died without anybody knowing that they had aneurism, have dropped dead suddenly, and the post-mortem has shown the presence of aneurism. So there is no disease which presents such extraordinary limits of ease and difficulty of diagnosis.

There is another curious point to which Dr. Beggs called attention, and that is, how could the patient have paralysis of the right recurrent laryngeal nerve? The specimen shows no reason for it. There is no pressure on the right recurrent laryngeal nerve. What is the cause of that? I would like to ask to Dr. Porter what condition the right cord was in when he first saw the patient.

Dr. Wm. Townsend Porter.—When the patient first came the right cord could be adducted a little beyond the median line, not so much afterwards, it was never adducted to the extent which we would expect to find in pure unilateral paralysis.

Dr. Mulhall.—The pathological specimen does not explain that clinical phenomenon. There is no pressure there. Dr. George Johnson, of London, has reported a number of cases in which, although there was pressure only on one recurrent laryngeal nerve, there was complete bilateral paralysis, and his explanation is that the cerebral center of the one side became enervated, and this loss of nervous energy following on account of loss of peripheral power, the corresponding side takes on the same condition, and a condition of epilepsy on the right side is produced in the same way. I do not see that that explains much, but at any rate this is not the first case in which the paralysis on both sides of the larynx followed pressnre only upon one recurrent laryngeal nerve.

Dr. C. W. Stevens.—Does not that also occur in other parts of the body?

Dr. Mulhall.—I do not know. There is one curious thing in which the larynx does not participate with other parts of the body, that is, the nerve which supplies abduction also supplies adduction, this nerve has no analogy in any other nerve in the human body. There is no other nerve that supplies extension and flexion in the body, that is, there is only this one nerve in the body which controls two totally opposite physiological actions. Efforts are being made to explain its physiology. No satisfactory explanation has been offered yet. But the fact that the first paralysis to take place on pressure of the recurrent laryngeal nerve is never I may say, the paralysis of adduction, it is always the paralysis of abduction at first. After the nerve becomes totally degenerated, the abductor fibres suffer as well.

There is one other point that I would like to mention. Whenever I have heard a case of aneurism reported, I have always heard mentioned that there was or was not any history of syphilis. If I remember aright Dr. Boreman (?) in his investigations on the influence of syphilis in aneurism, has come to the conclusion that syphilis has very little to do with it, he concludes that syphilis is not much of a factor in the production of aneurism, that strain is far more likely to cause it than syphilis.

Dr. F. H. Ford.—Some years ago I was called in consultation in a case which on examination I pronounced to be one of aneurism of the aorta. My reasons for doing so were that there was pronounced dulness, with an exaggeration of the vocal sounds in the intrascapular region. It is now three years since I saw the case, and I do not recollect it very distinctly. Another point was there was considerable difference in the strength of the radial pulse upon the two sides, the right pulse being the stronger. There was also evident interference with the functions of the larynx. I made no laryngoscopic examination, not being an adept at that sort of thing, but I was strnck with the embarassment in

phonation, and I think there must have been some chronic infiltration of the structures of the larynx which, taken together with some little occasional spasm or spasmodic actions in respiration led me to conclude that the recurrent laryngeal nerve was affected. The man had been sick in bed for two months when I saw him, gradually getting worse. There were no other signs present except increasing feebleness and difficulty in deglutition. The man died, but I made no post-mortem.

Dr. F. R. Fry.—There is one statement of Dr. Mulhall's that should not go unchallenged—that there is no other nerve except the recurrent laryngeal, which supplies two opposite or antagonistic muscular actions. The sciatic nerve certainly supplies muscles of flexion and extension, and so does the musculo spinal nerve of the arm; both these are called nerves. The recurrent laryngeal nerve conveys motor fibers that are conveyed first in the trunk of the pneumogastric nerve; and the same is true of the motor fibers that supply respectively the flexor and extensor muscles of the leg; they are conveyed by the sciatic nerve. So I do not understand the point of the doctor's statement.

As to the possibility of parallel or similar centers in the brain being sympathetically paralyzed—that is, one center being affected so as to produce paralysis when there is some peripheral lesion of an area supplied by another opposite center. I do not remember an example of paralysis of that kind unless it be hysterical paralysis. We may have an hysterical paralysis of the voluntary muscles resulting from peripheral disturbance of an area supplied by the opposite side of the brain.

Dr. Mulhall.—Perhaps I may have gone too far in my broad assertion that there is no similar nerve physiologically in any other portion of the body which supplies these antagonistic muscles; but I will modify that by saying that there is no other portion of the body where the trunk of a nerve being pressed upon, always one set of fibers are paralyzed at the expense of another. In the recurrent laryngeal nerve, when it is pressed upon, it is always the abductor muscles that are paralyzed in preference to the adductor.

Dr. F. R. Fry.—I think there are parallel conditions in regard to large nerves on this point, too. It is a remarkable fact that in peripheral neuritis, often affecting considerable or all portions of the nerve, the extensors are apt to suffer first and more profoundly than the flexors. This is a fact of common observation, and it has never been satisfactorily explained.

Dr. Porter.—Dr. Mulhall has spoken in a very interesting way in regard to three forms of dyspnea that are found in cases similar to the one reported to night. Two of the forms of dyspnea mentioned were found in this case. Whether pulmonary dyspnea was present or not is a question. When the patient first came, before there were any signs upon which the diagnosis of aneurism could be positively based, there was a good deal of doubt in my mind as to whether or not there could be enlarged bronchial glands. The elaborate dissections of DeMussy and Barety show that very small enlargement of these glands in a certain direction may cause dyspnea by pressing on branches of the pulmonary plexus. I think there might have been such a condition in this case. The only diagnostic point of this conditiou is dulness on percussion posteriorly between the scapulæ, but on percussion in this region no dulness was elicited in this case. If enlarged glands had been found before death, as they have been found post-mortem, then the diagnosis would have been very doubtful as between dyspnea caused by the pressure of these glands upon the pulmonary plexus, and dyspnea caused by the pressure of an aneurism.

In regard to direct pressure upon the right recurrent laryngeal nerve, it seems to me the cases reported by Dr. George Johnson would indicate that such pressure was not necessary to cause disturbance of the functions of the nerve. As a matter of fact we know that an aneurism as extensive as this, agglutinating in its growth so many structures, may cause pressure by displacement of parts. Dr.

Johnson's theory of the replacement of one recurrent center by another is, of course, a mere theory. If there be such centers then when one center is incapacitated, it is certain that the other has double work to perform. We all know that the nerve centers can not be stimulated beyond a certain point without exhaustion taking place, and such over action of the center might thus cause some degree of paralysis of the nerve which was not pressed upon. Regarding the physiology of the recurrent laryngeal nerve, why is it not proper to regard it as a collection of nerves going to a single muscle, just as we have in the sciatic nerve?

Dr. Beggs.—It has been suggested that in cases of thoracic aneurism, the history of the patient as regards syphilis is always inquired into, and some doubt has been thrown upon the value of this custom. It is well to remember the fact that syphilis will produce an endarteritis, it seldom produces a meso-arteritis, however. Now an endarteritis is not sufficient to produce an aneurism. There must be a meso-arteritis. The tunica media must be involved before the aneurism can result from change in the wall of the vessel in very sudden exercise.

The point in regard to diagnosis of enlarged bronchial glands had been mentioned. This would naturally be one of the most difficult points to determine, and yet it is not without its practical bearing as can be shown in this specimen. We have here a diverticulum of the esophagus brought about by the contraction of a previously inflamed bronchial gland. Now as a further result we can have a perforation of the esophagus accompanied with inflammation and gangrene of the mediastinal tissues, or of the lungs depending upon the point of perforation. This can all be referred at times to a previous inflamed condition of the bronchial glands.

Then again this might have been a case where a stenosis of the esophagus was suspected. In fact stenosis was known to exist. If the point of stenosis had been below the diverticulum (as was the case), then in passing a sound, it would not have been at all difficult to pass its point into this diverticulum instead of following the lumen of the esophagus. A little force being used, the walls being naturally thin, the sound might have been made to pass through the walls of the esophagus, with resulting inflammation and gangrene and possibly death.

Dr. Porter.—I would like to reply to a statement of Dr. Mulhall's, namely that there may be complete paralysis on one side of the vocal apparatus and yet no alteration of the voice. The condition in phonation would be this: We should have one vocal cord more than usually tense from compensatory action of its tensors, and we should have the other vocal cord necessarily lax from paralysis of a portion of the tensor apparatus on that side. The chink of the glottis might not be larger than normal, but when the patient was told to produce a high note, a note requiring strong tension of the vocal cords, then it seems to me extremely doubtful if there would not be a failing of entire purity of tone in the production of that note, because in order to have a pure note fairly struck we must have a vibration of both vocal cords in the same time, and no interference of the vibrotory waves. In the case we supposed should have one cord more tensely stretched than normal, and the other not so tensely stretched, hence, unequal vibration and loss of purity in tone.

Dr. Mulhall.—Of course it would be impossible to produce a high note without having an inequality in the voice. I called attention to that in my paper. But I remember the case of Pat Rooney, who had a deep voice; he nad no dyspnea at all. I watched him a long time, some 18 months, until he died. His first symptoms were dyspnea which only developed afterward, but by watching him as I went along I discovered that he had paralysis of the cord, but there was no difference in his voice: he never could produce a high note. I agree with the doctor that it would be impossible to have a high note produce pure.

Dr. Charles Barck read a paper on massage in eye diseases. See page 483.

Dr. Pollak.—I have had no experience in the use of massage in diseases of the eye, except in cases of immature cataract, the maturity of which can be promoted by massage.

Dr. Post.—I do not know that there is anything to be added to what Dr. Barck has said in regard to massage in eye diseases. It is a rational thing to do, and it is a treatment which I have been in the habit of doing to a certain extent for a long time. There is another way of using it which I did not hear him mention, rubbing one lid against the other in cases of conjunctival troubles. My idea in using massage is that it makes the application of other remedies more thorough and complete. For instance, by using massage after the application of a solution of the nitrate of silver, it makes the application more complete works it into the interstices, and in cases of nitrate of silver and other astringents, it exhausts its strength before it comes to the cornea. There is another use of massage in eye trouble, and that is in superficial diseases. Embolism of the branches of the retinal arteries, the central artery of the retina is one of the dreaded troubles in an eye clinic, and yet by this system of massage these emboli have been dislodged so that the function of the retina has been resumed. I have seen a number of such cases recorded, although they are quite rare. An interesting case in point shows the way our advances in medicine and surgery are sometimes made by the laity prior to our getting hold of them. A young woman 21 years old was brought into one of the English eye clinics, and it was discovered that one of the lower branches of the retinal artery was plugged; the upper portion of the field being lost, and in manipulating the eye a certain amount of pressure was brought to bear upon it, and suddenly this clot seemed to move away and the retina resumed its function, that is the medical part of it, the young woman then stated that about a year prior to that time she had a similar attack, and by rubbing the eye as one naturally does when there is any obscuration the sight returned naturally. That trouble was probably of the same character as the last attack. Of course that is an expedient which is not likely to be of benefit except where the patient is seen very promptly, much more promptly than we oculists usually see them. I understand Dr. Pollak to speak of massage in regard to the lens also.

Dr. Pollak.—Yes, in maturing cataract.

Dr. Post.—How do you use the massage there?

Dr. Pollak.—By merely rubbing the upper part of the lid, and also by opening the cornea and then with a probe rubbing it.

Dr. Post.—Massage is used in that way, passing the instrument under antiseptic precautions into the anterior chamber and striking the anterior capsule of the lens. That is one of the methods; rubbing the cornea against it, and my own experience has thus far been very satisfactory, but those who have had more experience with it than I have say it is somewhat dangerous and I shall be slow to undertake it hereafter.

Dr. A. D. Williams.—I confess that my ideas do not harmonize entirely with the writer of the paper so far as the explanation of the result is concerned. I rather consider that the benefits from the massage are due more to the medicine than to the manipulation, because you know that by rubbing the lids over the cornea and conjunctiva and sclerotica the medicines which he uses are most thoroughly rubbed into the tissue, and of course they thus have a better effect than they would when simply put into the eye. So I am disposed to attribute the good effects, which are obtained from this treatment, to the medicine, rather than to the manipulations. That would be my explanation. Some one in the east recently published an account of massage in the treatment of paralysis of the recti muscles; for instance paralysis of the third nerve, and he states that he has had good results by taking hold of the attachment of the muscles of the ball with a pair of forceps and pulling them forcibly in the direction of their axes and he attributes very decided results to this kind of treatment of the muscles. There may be something in that; I am inclined to think there is, but in

the cases which the doctor has referred to I would certainly attribute the benefit to the medicine and not to the manipulations.

So far as the treatment of embolism by massage is concerned, I would be inclined to doubt the diagnosis in cases where that treatment had been beneficial, because I do not see how it would be possible to remove the embolism from the artery by rubbing the ball. The only thing that could be done would be to drive the embolism further into the artery and certainly that would make the plug still firmer than it was before.

Dr. Dickinson.—I understand Dr. Barck to say that the remedial effects of massage was to increase the nutrition of the parts. I desire to report a case in which I succeeded as I think, in removing an opacity of the cornea by the use of electricity in treating ptosis of the lids. The electricity induced an improved condition of nutrition of the parts and the opacity of the cornea was removed.

Dr. Fairbrother.—The use of massage in acute or chronic troubles of the eye, antagonizes our idea of the effect of rest in Surgery. I am a great believer in massage, but I have never had occasion to use it in such a case, nor had my attention been called to it; on the contrary the instruction I always received from our friend Dr. Pollak was, above all things to avoid the use of massage; he used to threaten the patients with all sorts of punishment if they did not quit rubbing their eyes.

The use of massage in certain lumbar pains—in certain neuralgiic and rheumatic pains is unquestionably beneficial, but I am very much inclined to agree with Dr. Williams that massage in diseases of the eye, accompanied with the use of vaseline and astringents is useful just in so far as the remedies are useful.

Dr. Barck.—I wish to say a few words in relation to the cases reported by Dr. Post and Dr. Pollak. Of course I knew that what they called massage was recommended in those cases, but I believe they are not properly classed amongst what we call massage.

In embolus of the retinal artery of course the thrombus may be driven further away by any movement of the eye, but I do not see how massage could do any good in such a case.

On the other hand I believe what is called artificial ripening of the lens is not to be affected by massage. As to the remarks of Dr. Williams, of course it is to be questioned what the real theory is. I do not present any particular theory in that regard, but there is no doubt that when massage is applied to the muscles or to the joints and no other remedy is applied that beneficial results are obtained, and I can not see why this should not be true in the muscles of the eye. On the other hand it is a disputed question how much of the remedies which are applied to the outer skin is absorbed and how much is not.

Dr. Bond.—I will state that the little patient whose case I reported at last meeting is doing nicely; she has recovered without an unfavorable symptom.

SELECTIONS.

A CASE OF CESAREAN SECTION.

BY HOWARD A. KELLY, M.D.,

Associate Professor of Obstetrics in the University of Pennsylvania.

Read at the meeting of the Philadelphia Obstetrical Society, September 6, 1888.

It has been my good fortune to operate successfully upon two cases of Cesarean section in this city, April 17 and May 30, of this year, the indications being, respectively, absolute and relative.

While, in the case of the absolute indica-in dication, no possible discussion can arise as to the advisability of operation, especially since the publication by Dr. R. P. Harris, of the wonderful results following the introduc-of the accurate method of suturing introduced by Saenger; as to the relative indication there is still abundant room for careful discussion, and its consideration would be beyond the scope of the present paper. The writer hopes, at no distant day, to present

the second case as a basis of a full consideration of this very important topic. The great work of Dr. F. Caruso, upon Cesarean section, in preparation in the Italian language, will be of the utmost value in settling this question within its proper limits.

Case. History.—Mrs. J., a patient of Dr. A. B. Ireland, slight, delicate American, four feet six inches in height, twenty-five years old, was at full term April 3, when she was taken with labor pains; she went on some days with irregular pains, until they finally became so strong that she sent for her physician, Dr. Ireland, the 8th, who stayed with her from nine o'clock in the morning until four in the afternoon, returning again in the evening, feeling sure that, from the character of the pains, her strong straining, bearing-down efforts, the termination could not be far distant. The day following this visit she had one marked and two slight epileptic seizures. From the date of this first visit she remained in her bed until delivered by Cesarean section. She suffered continuously from distressing, bearing-down sensations, with remissions of hard labor pains, resembling those of the later stages of labor. The midwife, who cared for her under Dr. Ireland's direction, gave an excellent circumstantial account of her condition throughout this period, stating that in her fifty-one years of experience she had never seen a woman in such strong labor pains. In spite of the time she had been in labor and the efforts she had made, the os remained very small, and the cervix rigid. Dr. Ireland made careful, but unsuccessful attempts to effect a manual dilatation. The waters ruptured the tenth day.

Monday evening, the thirteenth day at eight o'clock, all pains ceased, suddenly returning Tuesday, when her expression was one of marked collapse, and she was too weak to give expression to her distress. Dr. Ireland called Dr. A. A. Starck in consultation. They decided that Cesarean section was the only possibe means of rescue, and sent for me with an accurate statement of her condition. I had the good fortune to have at my house at the time Dr. Robert P. Harris, and Prof. Gardner, of Montreal, who accompanied me.

Dr. Robb and the matron of my hospital, Miss Little, assisted me in the operation. The matron made all necessary preparations in a few minutes, and no time was lost in reaching the patient, who was found profoundly collapsed, with a pulse of 142, a tympanitic abdomen, the uterus prominently vaulting the anterior wall. The pelvic measurements were: Sp.i. 19 cm., cr.i. 25 cm., d.B. 15.

The tissues within the pelvis were found to be edematous, hard, and hot, and it was impossible to recognize special structures, with the exception of the hard, infiltrated cervix; the pelvis being literally choked with the hard, unyielding mass, above which lay the child's head, which it was impossible to reach. The rapid, feeble tones of the child's heart showed that it was still living. The patient was examined carefully by both doctors Harris and Gardner, who unhesitatingly concurred with the views of Drs. Ireland and Starck.The decision was:Cesarean section was at once indicated,prognosis unfavorable. The patient was at once etherized. The operation was conducted with thoroughly antiseptic precautions, with the exception of disinfection of the room and the neighborhood—the patient living in a frame house in a densely crowded section of the city. Minuter details from the etherization to the final dressing will not be dwelt upon.

Operation.—The time occupied from the beginning of the operation to the last suture in the abdominal wall was thirty-five minutes. After shaving, washing and thoroughly disinfecting the abdominal wall with a bichloride solution, the field of operation was hemmed in on all sides by cloths wrung out of a five pro mille solution. The instruments and hands of the operators, and the parts of the patient involved in operating, came in contact with these cloths, and with nothing else in the room. An incision seven inches in length, extending above and below the umbilicus, was made in the median line, and the uterus delivered through it; a rubber ligature was thrown around the cervix provi-

sionally, and a large cloth laid behind the uterus, covering the incision and retaining the intestines. An incision was now made in the uterus near the fundus extending down toward the cervix, which cut across the placenta at its center (*plac. prev. centr. Cesar*). Great care was taken not to cut the placental vessels. The placenta was separated readily, and the nearest presenting part caught proving to be the leg of the child lying in the first position. The child was delivered, membrans and all up to the head, which was firmly wedged at the superior strait, requiring almost a minute to free it, accomplished by inserting the fingers in the mouth and making a pair of forceps of the hands.

Prof. Gardner took possession of the child, which he resuscitated with difficulty to a condition of feeble vitality after persevering in his exertions for half an hour, when it gave its first cry. The placenta and the decidua came away with the child. The appearance of the uterus was healthy. The uterine wound was closed by twelve deep and twelve superficial silk sutures, introduced as prescribed by Sanger, of Leipzig. The cloth and the constriction tube, which lay loosely around the neck of the uterus, were removed, and the contracted uterus dropped into the abdominal cavity which was clean and free from blood. The external incision was closed by seventeen deep and twelve superficial sutures, the wound dressed, and the patient returned to bed.

Up to this time the case is an interesting one on account of the peculiarity of the indication, being one which might arise in a normal pelvis, labor being obstructed by abnormality in the fetus; the indication here was similar in character to that presented by tumors obstructing the pelvis. Consideration for the life of the child, after such prolonged and severe labor, was not a factor in the decision. Had the child been dead it could have been delivered in no other way.

The after-history presents some points of remarkable interest; on the day following the operation she suffered much from tympany, nausea and vomiting—a continuation of her previous condition. Her pulse was 144, and the temperation 99¾°. Upon taking Epsom salts in concentrated solution; followed by the citrate of magnesia, she had a very large movement, filling a bed-pan. The next morning, pulse was 88, and the temperature normal, where it stayed until the tissues in the vagina began to break down. She took nourishment well from the first, improved at ouce in appearance, and passed urine voluntarily from the second day up to the secondary period of disturbance from the odematous pelvic tissues. The child, which was small and wizened, became jaundized on the third day, dying at the end of a week.

She complained of much pain on the 21st, when all the stitches in the abdominal wall were removed, letting out some dark, grumous pus just below the naval, giving immediate relief. I found, also, that in the pocket in which the child's head had lain, above the undilated portion of the cervix, and below the contraction ring—that is, in the upper part of the lower uterine segment, there was a large accumulation of clots. These I carerully removed, keeping the whole tract clean by repeated douches. The abdominal incision broke down in its upper part, extending downward, and showed at one point the anterior wall of the uterus adherent to the abdominal wall. The infection which, starting into the inflamed vaginal tissues, extended upward, developed for two days a condition of physometra, which disappeared as soon as the opening into the uterus was visible per abdomen, when the whole tract was irrigated from above downward. The infravaginal cervix sloughed away, a large mass crackling with air vesicles, and with the rapid discharge of all debris, she passed through a period of great danger from septic absorption, with but the slightest symptoms of discomfort.

The note of the 27th, 10 days after the operation, states, "patient looks and feels perfectly well, has a bright, happy expression. Pulse 72, temperature normal. Natural movement. Slight, thin discharge from abdominal wound, which is filling up with abundant healthy granulations." Four days later

she had a chill, followed by a mild phlebitis, from which she recovered rapidly. I have not seen her since my return from Europe,but Dr. Harris tells me she is well, only needing that the narrow cicatricial cervix be ditated, to allow her to menstruate per vaginam instead of per abdomen.

I am indebted to Dr. Harris for some valuble statistical information, which I shall present in a more formal paper at a future meeting. This is the ninth case of Cæsarean section with preservation of the uterus, performed in Philadelphia. The last successful case was that of Prof. Gibson, of the Univer- of Pennsylvania, 51 years ago. The cases operated upon from that time to the present, were, almost without exception, received in a condition in the highest degree unsatisfactory to the operrtor.

In outline the following features appear remark able. The length of time the patient was in labor—being 14 days. The pulse at the time of the operation was 142. The agglutination of the uterus and anterior abdominal wall, as observed in Prof. Gibson's and other cases, which in this case prevented general infection of the peritoneum. The remarkable pocket for discharged formed below the contraction ring and above the undilated portion vaginalis.

An important factor, I think, in determining her recovery was that, without undue haste, by quick work, and having all necessities within easy reach, I was able to complete the operation in 35 minutes. I have omitted most of the details which are usual in these cases, but cannot close without a tribute to the care and faithfulness of the physicians who visited her during her convalescence, do ing often the work belonging to a nurse. Those who have anxiously watched bad surgical cases, sacrificing every personal inclination and convenience while the patient's recovery was a question, will appreciate how much is implied.—*Med. News*.

THE PHYSIOLOGY OF HEPATIC AFFECTIONS.

BY JOHN AULDE, M. D.

In the diagnosis of hepatic diseases we have two general divisions to guide us in the study, the one complementary to the other. Thus we have pathological conditions and clinical signs or symptoms. The pathological changes may be obscured by the involvement of other tissues than those originally affected. The diagnosis of abscess may be difficult by reason of the atteuding inflammation, either acute or chronic; that of cancer may be well nigh impossible in the absence of clinical history pointing in that direction. Pain and tenderness in the latter disease are signs not often wanting, but the general physical condition of the patient, the diffused, and at times fugitive, character of the pain, with comparative freedom from pain when the peritoneum is not involved, are all calculated to mislead the diagnostician. These difficulties cannot well be appreciated without a comprehensive summary of the functions of this organ—its anatomy and physiology—and along with these comments I shall refer incidentally to some of the diseases liable to be met with, and which are likely to interrupt or seriously interfere with the performance of its normal functions.

These conditions generally antedate the symptoms of a departure from health, and I have, therefore, selected for a topic the Philosophy of Hepatic Affections, in order the better to place you en rapport with the instructions which are to follow. What the kitchen is to the hotel, the liver is to the body. If the food is improperly cooked, the guests make serious complaints to the landlord, and he in turn, enters complaint against the superintendent of the culinary department. You can very well understand how this state of affairs comes about. One says that the meat is underdone, another that it is overdone, while a third complains about the pastry, a fourth suggests an improvement in the hash, so that the entire system is threatened by the friction set up in this particular department. The liver is possessed of a double function, it is a secreting gland, but it also performs a function which is in the nature of excretion. If these different functions are not properly and promptly attended

to, there will be friction. The complaints will manifest themselves in various ways and at various times. Probably the first to complain will be the digestive system; intestinal dyspepsia is set up, and immediately there follows headache and languor, lack of ambition and unwillingness to continue long at any particular piece of work. The demon of unrest takes possession of the mental faculties, and, as a compromise, the physician at once advises his patient to recuperate by means of a trip to the seashore or the mountains, believing that good will be accomplished by a change of scene, new friends and new surroundings. Freedom from care, and a change of diet, will often work wonders; the exhausted nervous system takes a new lease, and the functions of the liver are performed more nearly perfect than when the patient was suffering from the effects of general depression, sometimes called neurasthenia, although better known as nervous prostration. Derangement of the function is frequently responsible for this new disease which has lately been injected into our modern nomenclature, and the distressing mental condition of the hotel-keeper corresponds very well with the situation of a patient who, unfortunately, becomes the victim of liver troubles. After dyspepsia comes melancholia, and even mania; then follows heart and kidney disease, often as a result of impurities in the blood, and the sufferer becomes a burden to himself and friends. You may not have seen them, but in the course of your experience as a physician you will be called upon to deal with "the mind diseased," and you will learn, too, that "There be more things, Horatio, twixt heaven and earth than are dreamed of in our philosophies." If you would have your patients bless you, if you desire to live happily and with comfort yourself, see that the liver, the kitchen of the body, is in a healthy condition, and able to take care of the products that are offered for its manipulation.

Classification of Liver Diseases.—Any method of classification that suggests itself must of necessity be more or less imperfect and artificial, from the fact that the different affections depend one upon the other to such an extent that few of them can be properly considered alone, and these interrelations again are of advantage for our present purpose, as we are the more forcibly reminded of the interdependence of the various functions. Ordinarily, we should divide affections of the liver into congenital and acquired, but as I do not purpose considering here the subject of pathological anatomy, that plan may be dismissed. Another plan which suggests itself is the division into acute and chronic diseases, but it appears to me that we should only thereby multiply unnecessarily the number of topics for discussion, the result being that you would become more mystified than ever. In any general plan, the object is to avoid uncalled for repetitions, which in the main are calculoted to show more learning than judgment, and as a method of classification I have concluded to adopt that which appears to me the most natural—viz: the two divisions named functional and organic, or structural lesions. (See Pepper's "System of Medicine," article, Diseases of the liver). This division will include nearly all of those diseases directly connected with the organ in its anatomical and physiological relations, and I shall, therefore, for the present endeavor to give you a bird's eye view of the conditions attending the diseases as seen in these two divisions, leaving the points for differential diagnosis until we have become somewhat familiar with the gross appearances.

Functional Diseases.—The symptoms attending functional disorders of the liver may be briefly summarized as follows:

Biliousness, occuring either alone or accompanying attacks of intermittent fever, with or without malaria. The same condition may be caused as a result of medication, certain medicines when given to an extent to produce physiological effects favor the development of that condition known as biliousness; the use of improper food, or the gluttonous use of proper food, as well as alcoholic excess, will likewise do it, while gastrointestinal catarrh is a factor which should not be overlooked.

Lithemia may be classed as one of the functional disorders, a condition due to an excess of urates and uric acid, the latter being a product due to imperfect metabolism.

Hepatic Glycosuria is a condition favoring biliousness, due to the temporary overproduction of grape-sugar.

Jaundice is a well-known and easily-recognized departure from a healthy condition of the liver, but jaundice is not always due to the same cause. It may be what is termed hematogenous, a form of jaundice caused by the disorganization of the blood by which the coloring-matter is separated. Hepatogenous jaundice, on the contrary, is caused by a superfluous amount of bile, and may be due either to over-production, or to the failure of the liver to discharge the bile as formed, or possibly the bile may not be separated from the blood on account of defective work on the part of the liver. It will thus be seen that althongh functional disorders of the liver are not numerous they are quite complicated, their diagnosis difficult.

Organic or Structural Diseases.—Hyperemia, while not properly in its incipiency an organic diseases, often results in structural lesions, and appropriately classed under this head. It may be caused also by excess of food; the suppreseion of discharges, as in the cases of rectal or uterine hemorrhages. It may be due to mechanical causes, as from heart affections, pulmonary diseases, or from pleural effusions. Climatic influences have something to do with the development of hyperemia, and in this connection should be mentioned malaria and the intermittents.

Perihepatitis is a structural lesion, and may be due to traumatism, contusions, or wounds. It is not infrequently produced by compressions, as in the case of tight lacing, and by the method of supporting the clothing in men. Appearing as a secondary condition, following inflammation of contiguous tissues or organs, it is none the less perihepatitis.

Interstitial hepatitis, sclerosis, or cirrhosis is also a structural lesion attended by thickening of the interstitial tissues of the organ and hardening, with or without enlargement, and may occur as a congenital affection, although this is rare. As a rule, it is largely due to the habitual use of spirits, but is occasionally seen in connection with syphilis, in malarial poisoning, and in obstruction of the bile ducts, as in cancer. In the latter case it is not improbable that the cancerous tendency is developed in this part of the economy as a secondary affection. Obstruction of the circulation is sufficient to cause its appearance, and it will be found in connection with closure of the hepatic or the portal vein. Poisons, such as antimony, arsenic, and phosphorous, are supposed to act in a causative relation to this disease, and, lastly, it may follow an attack of perihepatitis. In making a running commentary upon these subjects, the use of technical language may be so unfamiliar to you that you will not be able to grasp the full meaning of my remarks, but with the friendly aid of a pocket dictionary and the industrious use of your note-books, it will not be long ere you can follow me, and have a very good understanding of the drift of my remarks. For the present, it will be as well to have some of these words defined, that you may not be wholly in the dark.

Abscess of the Liver (Suppurative Hepatitis).—The causes leading to abscess of the liver are numerous, and the principles ones may be enumerated as follows:

Climatic influences, rich and highly seasoned food, alcoholic drinks, sex, a large proportion of these cases being males, temperament, the lymphatic and nervous being more susceptible than other, the passage of the biliary calculi, contusions and wounds, the condition of portal and hepatic veins and the hepatic artery, an illustrations of the latter being seen in the frequency of this affection in persons suffering from inflammation of the lower bowel, as in proctitis.

Abscess of the liver has been found accompanying chronic dysentery, and it is now well recognized as succeeding frequently ulceration of the stomach, of the intestines, and of the bile ducts, etc. It will be regarded, therefore, as primary or secondary to other affections of the system, but it should

be noted that it may also develop from such causes as embolism, from septic inffection, from osteomyelitis, and from parasitic organisms. Finally, we have to state that abscess of the liver may occur from causes which are unknown, or, we should say, from causes which are not discoverable.

Acute Yellow Atrophy of the Liver is a rare disease, the causes of which are yet uncertain; it will be considered in connection with phosphorous poisoning later on.

Cancer, or Carcinoma, is both a primary and secondary affections, and the same rules apply to its diagnosis as when it appears in other organs or tissues. The diagnostic signs will be considered in the proper order.

In conclusion, it may be remarked that the various other affections of the liver to be taken up in regular order will be the following:

Amyloid, waxy, or lardaceous liver; fatty degeneration of the liver; affections of the biliary passages, biliary concretions, etc; diseases of the portal vein, and lastly, parasites of the liver. This will embrace the headings for the study of the symptoms and diagnosis of hepatic affections, and it is desirable that you should become sufficiently familiar with the subject, that you can give the points required in differential diagnosis readily, but to do so you will have to go about the study systematically and intelligently. This question, thoroughly mastered, will form an important stepping stone to your future progress and contribute materially to success in the practice of the healing art, and is,therefore,earnestly commended to your careful consideration.

SCIENCE AND MEDICINE.

An abstract of an introductory address at University College, London, by Dr. W. Ramsay,—who took for his subject the manner of thought of the Middle Ages as regards science and medicine. He gave a summary department, and the subordinate part which chemistry played in the practice of the ordinary medical man. The altered conditions of the colleges necessitated on acquaintance with the elementary principles and practice of chemistry. He contrasted examination and teaching, and then showed the absurdity of trying to teach efficiently the whole of the subjects in the synopsis in three months. He then referred to observation of effects and the reasoning as to probable causes, and said that the much-abused course of qualitative analysis was one of the best preparations a man could possibly have for the medical work he was subsequently called upon to study. It would assist him in prescribing and dispensing, the latter of which, he said, was often vilely done. A good pharmacist could often render real service. About fifty years ago the hospital laboratories were comparatively the only places where chemistry could be studied properly, and as a consequence, they attracted the very best chemists in the country. Of recent years, the value of a lectureship in chemistry at the hospitals had considerably diminished, so much so that the lecturer in a small medical school was often required to furnish and maintain his department on a sum of £200 annually. Every such individual was compelled to devote his attention to some branch of technical chemistry as a source of livelihood. He then proceeded to say a few words on behalf of the scientific chemists. "The part they have played in the advancement of human knowledge, and indirectly in the alleviation of human suffering, has formed the subject of many eloquent discourses. Some of the discoveries which have proved such a boon to your profession, and which have so benefited mankind, have never had a price put on them by their authors, and still there are whole continents of subjects waiting for explorers. If we take any subject in chemistry connected with medicine, and inquire into the evidence respecting it, we may be agreeably surprised to find so much written about it, but most probably be disappointed at what has been done on it in the way of experiment. Take, for example, our knowledge respecting the carbo-hydrates, and their disposition in the animal economy. Used as food, they give rise among other

things to fat. How does the transformation take place? The problem is interesting to the chemist, but infinitely more so to the medical man anxious to advance his profession. The carbo-hydrates and animal fats are classed by the chemists in two separate groups, having no obvious relation. From the animal fats, by the application of heat, can be obtained two substances closely related, namely acrolein and allyl alcohol. About two years ago it was announced that, by taking acrolein, brominating it, and then decomposing the product with baryta water, sugar (one of the carbo-hydrates) had been obtained. Scientifically this was an impor tant advance in knowledge." During the past two years the speaker had found, during his own experimental inquiries on the carbohydrates, that the vapors of acrolein and allyl alcohol were present in considerable quantities in the gaseous products of the decomposition of the carbo-hydrates by heat. Might we not reasonably hope to obtain much information from such laboratory experiments, and eventually arrive at some conclusion as to the stages the sugars passed through before they were eventually assimilated as fat. His own impression was that the subject could be conducted in the laboratory by the trained chemist, and by him alone. The laboratories exist. Sir Edward Sieveking recently remarked that there were plenty of young men anxious to prosecute research if they were only guaranteed a living. Further, there were plenty of generously disposed people who freely subscribed to every benevolent scheme, be it real or imaginary. The problem is, How could these interests be connected?

The speaker then referred to vulgar quackery, and considered that some of the vagaries of legitimate medical practice indirectly encouraged it, citing as his evidence the so-called "grape cure," as recently described in the pages of the *Times*. He cautioned his hearers with regard to some of the combinations of meat, drink and drugs compounded for the use of the profession, and questioned the value of many of them. In bringing his remarks to a close, he specially reminded them of the high character of their profession, and the enormous influence of their example on the poor. "Always try," he said, "to make them feel that they have in you not only an adviser, but a friend."—*Brit. Med. Jour.*

PATHOLOGY OF DELUSIONAL INSANITY.—MONOMANIA.

Dr. Joseph Wiglesworth read a paper on this subject. The importance of considering monomania as a distinct type of insanity was pointed out, and, in particular, its fundamental distinction from mania was insisted on. Mania was considered to be an affection of the highest controlling and co-ordinating plexuses of the brain, and, in dissolution of the nervous system from this affection, the nerve cells and fibres perished from above downward. But it was suggested that, in the disease known as delusional insanity, the nervous derangement progressed, not from above downward, but from below upward, the primary change being in the peripheral nervous system or lower cerebral centers. The evidence in favor of this mode of origin was twofold, being derived pratly from a consideration of the mental symptoms themselves, and partly from the teachings of pathology in allied cases. The three leading mental traits of delusional insanity were 1, the entrance of well-marked hallucinations (or illusions); 2, the presence of delusions; 3, the preservation of the reasoning faculties. The invariable presence of the hallucinations was insisted on, and their relation to the systematized delusions pointed out. The author considered that in this affection the hallucinations always came first in point of time, and that the delusions were secondary, being directly developed out or the sensory disturbances. The direct dependence of the delusion upon the hallucination could, indeed, often be clearly traced—for example, the construction of delusions of conspiracies and persecutions out of hallucinations of the tactile and auditory senses. Here the pathological formation of

ideas proceeded upon the same lines as the normal physiological process. If, then, it could be shown that the hallucination always preceded the delusion, clearly the latter must be a secondary thing, and the primary change must be in the nervous structures, derangement of which was capable of giving rise to simple uncomplicated hallucinations. The preservation of the reasoning faculties was a fact of much significance. The argumentative power and excellent memory displayed by many monomaniacs was commented on; and it was argued that this fact in itself showed that, at this stage of the case, there could be no disease of the highest centers of mind. Turning to the pathological evidence, the author remarked that it was a recognized fact that disease of the sense organs was prone to give rise to a delusional state; and cases were quoted of syphilitic optic neuritis, in which marked delusions of suspicion became doveloped, the latter disappearing on the cure of the optic troubles. The most typical examples, however, of a delusional insanity, dependent upon changes in progress in the nerves thomselves, were derived from certain cases of locomotor ataxy. The insane manifestations which at times supervened in this disease frequently took the form of the monomania of suspicion and persecution; and the importance of these cases lay in the fact that we could often clearly trace the genesis of the delusion out of the abnormal information furnished by the peripheral nervous system. The abnormalities of the tactile sense in this disease gave rise to various kind of perversion of touch, the patients feeling as if they were treading on cotton-wool, etc. The perversions of this sense were, however, usually conducted by the sense of sight, and no delusions were developed. When, however, blindness came on from atrophy of the optic nerves, this method of correction was no longer available, and delusions were very prone to ensue. So much the more likely were these to occur if the auditory nerve also became affected. If the main avenues to knowledge were sealed, delusions must become developed almost as a matter of course. That under these circumstances the sensory pains should be mistaken for the tortures inflicted by supposed enemies was not surprising, nor was it to be wondered at that delusions of suspicion and persecution should become developed. Such cases showed that a mental state practically identical with monomania might be produced by physical changes in progress in the peripheral nervous system. This did not prove that the more ordinary examples of this affection were thus produced, but it suggested that at least in some cases they might have a similar origin and course. It was not necessary, however, for the lesions to be of the coarse nature of sclerosis in order to produce an effect; changes far more delicate might be equally efficacious, although less easy to demonstrate Clearly also disease of those nerves which took the leading part in furnishing the raw material of intelligence would be more likely to be followed by mental derangements than affection of those nerves which were less immediately connected therewith. Hence the paramount importance of the senses of sight and hearing in this regard; hence also, perhaps, the comparative infrequency with which mental derangements became superadded in the numerous forms of peripheral neuritis, this affection having been studied chiefly in connection with the mixed spinal nerves. It was not, however, proposed to limit the inception of delusional insanity to the peripheral nervous system; in some cases it was probable that the disease commenced in certain lower cerebral centers, such as the optic thalamus or the primary perceptive cortical centers—those forming the end stations of the nerve fibres from the special senses; post-mortem evidence in favor of this latter mode of origin was however at present wanting.—*Brit. Med. Jour.*

ON THE TREATMENT OF HEMORRHAGES BY REVULSION OVER THE HEPATIC REGION.

The *Bul. Gen. Ther.*, July 30, contains an interesting article by Dr. L. H. Petit, in which this writer insiste on the role of the liver in the pathogeny of hemorrhages, and

the benefits of revulsion over that organ. He reports seventeen cases, mostly examples of hemorhages from hemorrhoids,from the nares (alarming epistaxis), from the lungs (hemoptysis in the phthisical), in which the application of a large fly-blister over the liver promptly and effectually arrested the hemorrhages. Many of these cases came under the observation of Professor Verneuil, occurring in his service; six of them were borrowed from Dr. Alexander Harkin's report in the *Lancet*, Oct. 30, 1886.

Dr. Harkin, it will be remembered, treated his cases of epistaxis, bleeding piles, etc., by the application of a blister, eight inches by four inches, for eight hours over the region of the liver, to be followed by cotton-wool dressing. The rationale of this treatment is thus set forth: "The frequent occurrence of epistaxis in youth is evidently due to the excitement and hyperemic condition of the liver and digestive organs during the period of active growth, and the constant demands on its functional activity. The liver at this stage closely approximates to the condition in after life which is the causual factor in the development of piles, and as such is equally amenable to treatment, in accordance with etiological principles; the derivative that cures the hemorrhoidal flux as certainly puts an end to the epistaxis, the outcome of hepatic congestion." Dr. Petit takes the same view, and remarks that physicians and surgeons, from Galen downward, have been in the habit of treating rebellious epistaxis by the application of cups to the region of the liver when the blood flowed from the right nostril, and over the spleen when it flowed from the left; this practice, however, was wholly empirical, no reason being assigned for it. To Verneuil belongs the credit of systematizing this mode of treatment (he maks use, sometimes, of large fly-blisters, sometimes of cold douches over the hepatic region), and of showing the intimate relationship which exists between the hepatic circulation and that of the mucous membranes of the entire alimentary tract, especially of the hemorrhoidal vessels of the rectum. Verneuil also calls attention to the frequent coincidence between hepatic congestions,whether occurring in connection with the latent and benign affections of the liver, or in cirrhosis and epistaxis, or bleeding piles, the latter yielding when the hepatic affection is relieved.

In confirmation of this position, an interesting case is reported which occurred in the practice of Dr. Tachard, of Colombes, (cirrhosis, epistaxis, arrest of the hemorrhage by a blister); another occurring in the service of M. Reclus, (rebellious bleedings from mouth and nose, cure effceted by a blister over the right hypochondrium); a third communicated by Dr. Salles, of Boulogne on the Seine, in which gingival and nasal hemorrhages, accompanying cirrhosis of the liver, were kept in abeyance by like means. Even grave hemoptyses, occurring in phthisis, have proved amenable to the same treatment.

Dr. Petit terminates his paper with the following conclusions:

"Divers spontaneous hemorrhages, medical or surgical, supervene in persons who are subjects of a chronic hepatic affection.

"A great many facts having demonstrated that there exists a close relation between spontaneous hemorrhages and chronic affections of the liver, it seems logical to treat the hemorrhage by revulsion, practiced over the region of the liver. This treatment has determined the final arrest of the blood-flow in the majority of cases.

"Wenever, then, the practitioner is in the presence of a patient suffering from spontaneous hemorrhage, he will find an indication to examine the state of the liver, and if this organ does not present its normal characters, to apply a blister over the hepatic region."—*Boston Med. and Surg. Jour.*

Sad Result of Gonorrhea.—There is in the Orthopedic hospital a case of anchylosis of the whole spine, due to gonorrheal rheumatism. The patient is receiving as treatment deep massage and large doses of iodide of potash.—*Med. Times.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 19. ST. LOUIS, NOVEMBER 10, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

DISEASES OF THE NERVOUS SESTEM.

BY FRANK R. FRY, A.M., M.D.

I. SULFONAL—THE NEW HYPNOTIC.—*Med. Record.*

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SULFONAL—THE NEW HYPNOTIC.

Dr. B. Sachs, of New York, says: The medical public has come to look with suspicion upon every new hypnotic, and the more highly a drug has been praised for its hypnotic qualities the more sceptical we are certain to be. This is not unnatural in view of the many disappointments most of us have experienced with paraldehyde, urethan, amylen-hydrate, hypnone, and the like. Sulfonal is the latest applicant for medical favor, and appears to possess qualities which entitle it to a fair trial.

The main facts regarding sulfonal are already well known; the articles of Kast, its discoverer, of Rabbas, of Schwalbe, and of Wendt, have informed us that it bears the beautiful chemical designation diaelthylsulfondimethylmethan; that it belongs to the group of disulfons; that in doses of 1.0 to 3.0 or 4.0 it has a decidedly hypnotic action, and that it differs from other hypnotics, not to say narcotics, in restoring the natural desire for sleep. The experience of the German authors mentioned above has been highly satisfactory, even Schwalbe obtaining good results in sixty-six per cent. of his cases.

My own experience with sulfonal is limited to about sixty trials on fifteen patients. These cases include a considerable variety of troubles, and a fair number of those troublesome oases of functional insomnia on the treatment of which I wrote a short article about a year and a half ago. Limited as my experience has been, it is sufficient to show that this new hypnotic is a valuable addition to the Pharmacopœia, but that it is not infallible; and what drug is? The drug was administered, as a rule, in 2.0 doses, to be taken one-half hour before bed-time.

The following are a few of the histories (condensed) of patients in whom the drug was exhibited. I place the cases of functional insomnia at the head of the list.

CASE I.—J. R——, male, aged forty-seven, merchant; general neurasthenia from overwork and over-indulgence in alcohol and tobacco; has not slept well during the past year; is extremely restleas and has heavy dreams; marked tremor of the tongue and fingers; knee-jerks lively if not exaggerated; severe palpitation (fatty heart); has been under treatment since June 3,1888;was given no hypnotics until August 13th;took two grammes one-half hour before bed-time; was asked

to take sulfonal on alternate nights; reports that he sleeps from twelve, midnight, to 6 A. M., without awaking, after taking powder; other nights quite as restless as before; has taken powders six times.

CASE II.—A. S——, merchant from Texas, aged forty-one; man of good habits; not addicted to alcohol or tobacco; no sexual excesses, but excessively hard work for years; has not been sleeping well for many years; never more than three hours' sleep; statement corroborated by his wife. August 21st, was given 2.0 sulfonal; reports that he has slept better than in five years; refreshing sleep, no dreams; has taken powder five times on successive nights, never sleeping less than eight hours after taking powder. Has gone South, with iustructions to take powders if absolutely necessary.

CASE III.—L. V. H——, manufacturer, aged thirty-nine, hard worker and excessive sexual and tobacco indulgence; all symptoms of spinal neurasthenia; in addition, troublesome insomnia for two years past; 2.0 sulfonal one half hour before going to bed sufficient to induce sleep for six hours, refreshing and without dreams; no headaches on awakening; three trials; insists on discontinuing drug from fear of contracting habit.

CASE IV.—G. F——, tobacco merchant, aged about forty-three, under treatment for a year or more for "tobacco heart." Met with severe accident (fell down elevator shaft), but escaped with contusion of hip and knee; severe nervous shock; complained of great pains for first three days; did not sleep a wink the first night after accident; second and third nights slept five hours continuously each night in spite of pain, which continued during day-time. Drug discontinued.

CASE V.—Miss K——, aged twenty; general nervousness and anemia due to chronic intestinal catarrh; is wakeful all night (mother states that patient never sleeps more than two hours all told during night); sulfonal given in 2.0 doses three nights in succession; no improvement in sleep; drug discontinued. General condition has now improved; sleeps better.

CASE VI.—Miss F——, aged thirty-five; under treatment for several years for all sorts of neurasthenic and hysterical symptoms; has attacks of neuralgic pain all through body; these attacks most apt to come on at night; has frequently taken chloral, morphine, and other narcotics with little success. Complained of insomnia (without pain) while in mountains; was given powders of 2.0 sulfonal; slept well (five hours) first three nights; after that, drug lost its effects entirely.

CASE. XI. Mr. C. L. G——, aged 32; case of typho-malaria with fever temperatures up to 105°F., pulse varying between 90 and 110; no abdominal symptoms. Takes an average of 25 grains of quinine during 24 hours. Very restless in consequence of elevated temperatures. In addition to quinine and antifebrin (gr. v.), when fever rose above 104°F. patient has received 2.0 sulfanol nighly five days in succession late in evenings, and invariably procured at least four to five hours' sound sleep (nurse's statement). No headaches in the morning, and no perceptible effect upon quality of pulse; no gastric distress after taking powder. Patient was not ordered to take powders in third week of the disease, but was given leave to take powder if very restless. Has taken seven powders since, never more than one a night; drug appears to have lost some of its force. Of late patient has obtained not more than three hours' continuous sleep from 2.0 sulfanol. Larger doses were not administered.

These histories will, I believe, suffice to show what the virtues of sulfonal are, wherein it is superior to other hypnotics, and in what respects it is, to say the least, somewhat disappointing.

1. These cases prove that suffonal is valuable in cases of functional (neurasthenic) insomnia. In those cases in which insomnia is often the most distressing symptom, it appears to justify the claim of its discoverer that it restores the natural desire for sleep, two grammes being sufficient to bring about this result; Cases V. and VI. being exceptions to this rule.

2. It is easily tolerated by the stomach;

does not produce headache, except in large doses of 3.0 and more, has no effect upon the circulation, and can be given in cases of irritable and fatty heart, and apparently in cases of fever (cf. Cases I., IV., and XI.), in all of which respects it appears to be superior to other hypnotics.

3. It has very slight or no narcotic virtues.

4. With some patients the drug appears to lose its effect if frequently administered.

If a larger experience than I have had will prove sulfonal to be a safe hypnotic in fever cases, all medical men will recognize it as a great boon. In the treatment of insomnia accompying mental troubles, its suceess is assured; in the treatment of neurasthenic insomnia it promises very well indeed, and the treatment of this trouble can be inaugurated by the exhibition of this drug; but if the condition is to be permanently cured, I hold to what I stated in this paper referred to above; "We are in need, not of additional hypnotics, but of more effective means of regulating cerebral circulation."

Sulfonal in Insomnia.

A. Cramer (*Neurolog. Centralblatt*, 1888, 430) reports the results of 407 administrations of sulphonal to 45 patients with various mental disorders. Thirty times there was no result;377 times,sleep lasting five or more hours was produced, usually one-quarter to one hour after the medicine had been taken. The dose varied from one to three grammes. Unpleasant secondary effects were only observed in one instance, and consisted merely in some sleepiness on the following morning. The author than instituted experiments to determine whether the drug possessed any disturbing influence on the diastasic action of saliva, and on the power of artificially prepared gastric and pancreatic secretions to digest fibrin. The results showed such power to be absent.

Rabbas (*Berliner klin. Wochenschrift*,1888,) has also obtained only good results with sulphonal in the insomnia of mental disorders. In doses of two to three grammes it acts better than either amyl hydrate or paraldehyde; and though sleep is produced by chloral more promptly, it does not last so long. He has found the remedy efficient in the worst maniacal conditions where chloral and paraldehyde had proved unavailing. Most of the 27 cases to whom the medicament was given 220 times were instances of mania and melancholia.

Local Anesthetic Action of Antipyrine Subcutaneously.

Wolff (*Ther. Monhft.*June, 1888, p. 279) attributes to antipyrine a local action over pain equal if not surpassing that of morphia. In acute rheumatism, an injection in the neighborhood of the affected joint relieved the pain in three to five minutes, so that—*e. g.*, the patient could without pain raise an arm that was previously helpless. The chest pains of phthisis he saw relieved in five minutes, and permanently, and the stabbing pains of pleurisy,etc., so assuaged in a few minutes that a satisfactory examination, previously interfered with by the shallow breathing, was made possible. In muscular rheumatism, in a large series of cases, the pain disappeared after a few minutes, either not to return at all or in a much more moderate degree. We believe that it would be useful for purposes of exact diagnosis in all painful examinations—*e. g.*, fresh fracture (*vide* August number): likewise in neuralgias of superficial nerves and in asthmatic attacks the results were extremely satisfactory.

In short, it is of the greatest possible use in all superficial, localized pains that one wishes to relieve quickly, for its action follows within five minutes persist 10 to 12 hours, and if then the pain returns, it is much modified. The solution is made of 50 per cent. strength in boiled distilled water and filtered several times. A syringeful of gr. viij is given, but oftentimes one-half the quantity is sufficient. No bad effects from the antipyrin were observed, but locally the injection causes, in all cases, some burning pain which is often intense.

[We have had considerable experience in the subcutaneous use of antipyrin ourselves, having employed it in this manner in sciatica and in facial, lumbar and ovarian neuralgia. We have never been altogether disappointed with its use in a single instance, and in most instances much pleased with its prompt effect. The "burning pain" mentioned above is the only drawback to its use that we have thus far met. This is sometimes much complained of. Within the last week we used in a case of very severe and persistent pelvic pain (affecting the bladder, womb, and rectum) three injections of 12 grains each a few hours apart, an ordinary syringeful of the solution each time. The burning was much complained of. But there was not much inflammation. We have a number of times introduced 5 grs. under the skin over the exit of the supraorbital nerve, causing some temporary pain but very slight swelling. We are always careful to rub the site of injection for some time. We have not used the care above recommended in making the solution, but have simply dissolved the antipyrin in clear hot water at the time of using.]

Local Anesthetic Action of Antipyrin Subcutaneously.

The following is from the *Ther. Gaz.*, Sept. 13, 1888. We quote it for what it is worth:

"One of the principal drawbacks to the subcutaneous use of antipyrin is the pain which it produces. The combination of ergot with antipyrin has been tried over and over again, but with the result of an only partial relief of the pain. Dr. Derlon (*Revue Gen. de Clin. et de Ther.*, July 12, 1888) states that this difficulty may be avoided by employing cherry-laurel water as a vehicle containing cocaine, and the antipyrin in solution in this. The strange part of this claim is that cherry-laurel water combined with solutions of morphine renders hypodermic injections of the latter more painful."

Eclampsia and Albuminuria.

In a recent contribution to this subject (*Arch. f. Gyn*, xxxii, 3) Lantos arrives at the following conclusions:

1. Albuminuria occurs more frequently in parturient than in pregnant women, which may be explained by the fact that during labor the uterus is subject to great contraction and tension, whereby the nerves in the uterine wall are subjected to greater irritation than usual.

2. This occurs more frequently in those who are pregnant and parturient for the first time, while the uterine wall itself is able to offer greater opposition to tension, this opposition acts as a nerve impulse.

3. In twin labors and labors at term, therefore, albuminuria is more common, because the increased volume of the contents of the uterus is the cause of greater tension.

4. Protracted labors cause protracted irritation, and favor the existence of albuminuria.

5. The artificial termination of labor can only be regarded as a means of nerve irritation which increases the already heightened reflex excitability of the vaso-motor nerves of the uterus and kidneys. The percentage of cases of albuminuria among those with whom labor has thus been terminated is much larger than with others.

6. Albuminuria occurs most frequently among primiparæ between fifteen and twenty years old, apparently as an expression of the heightened susceptibility to irritation of this period of life. Though the largest number of sufferers from albuminuria is found in multiparæ between the ages of thirty and thirty-five, it is due to the fact that, relatively, the largest number of women bear children during that period.

7. The quick disappearance of albumin from the urine is explained by the subsidence of nerve irritation.

8. The well settled fact that in the ordinary albuminuria of pregnancy albumin is not constantly demonstrable can not be explained by the mechanical theory. According to that

theory, the constant and increasing pressure of the uterus upon the veins as pregnancy advances should have the effect not only of causing albumin to disappear at times, but altogether. On the other hand, these cases are easily accounted for, if we assume that the nerve irritation disappears either on account of changes in the position of the fetus, or on account of habituation to the irritant.

It is, therefore, possible to believe that in cases in which there are no tissue changes in the kidneys, albuminuria of pregnancy and labor may be regarded as of no pathological significance, being a very common symptom arising from reflex irritation of the vaso-motor nerves of the kidneys, excited by irritation of the nerves in the uterine wall. As a diagnostic sign of pregnancy this condition may be considered as of some importance.

We have only to look back a century to realize the hold tradition had upon our fathers, and the great advances in our knowledge of to-day. In the article quoted it is plainly taught that the albuminuria of pregnancy may not denote any pathological change, and may even be useful in determining a diagnosis of pregnancy. What would the obstetrician of half a century ago, who saw with the appearance of albumin in the urine of his patient unhappy visions of eclampsia and its frequently unhappy consequences, say to this? It is not long since Roberts remarked that a small quantity of albumin in the urine seemed to have no special significane with some men ("Urinary and Renal Diseases," 1885, page 196), Gull suggesting that the condition is due to atony of the vessels and nerves, and Bamberger that it is due to vaso-motor change in the kidney, which may cause slowing of the circulation in the glomeruli. Such a cause is also suggested by Lantos in the article under consideration, other writers being also adduced to establish the neurotic origin—or, perhaps, better, a neurotic origin—of the albuminuria of pregnancy. Among recent systematic writers upon obstetrics, Lusk recognizes this possibility, and we do not see that Lantos has made any particular advances upon the opinions which prevailed concerning the etiology of this condition when Lusk's work first appeared. In removing it from the list of those symptoms which excite alarm, however, he has certainly taken more advanced ground than Rayer and Simpson, who were principally instrumental in introducing the subject, and it is certainly a great advance to remove an alarm-causing symptom to the position of a useful element in the formation of a diagnosis.

Anchoring of the Brain and Some of its Consequences.

In regard to this Dr. Wm. MacEwen, in his address at a recent annual meeting of the British Medical Association, said: When injury has been inflicted on the surface of the cerebrum, followed by plastic effusion and cicatricial formation, the superficial substance is apt to become soldered to the membranes when these remain intact, which in turn may be soldered to the skull, or in the event of their detachment, the brain may become directly adherent to the bone by means of cicatricial adhesion. Thus the surface of the brain becomes anchored or soldered to its rigid walls. It has no longer the free play within its water bed to expand and contract according to the varying states of the circulation. Each variation produces a dragging of the brain at this spot, and through it the whole hemisphere at least is affected. Any sudden physical effort pulls on the brain, producing a slight shock, a momentary disturbance, just as if the cerebrum had received a blow. Vertigo results. People affected in this way cannot rise up quickly, or perform any sudden motion of the body or head, without experiencing a sensation of giddiness, which sometimes causes them to drop. Consequently, they are often incapacitated from pursuing their usual avocations.

Following upon this, the gray matter of the cortex, immediately surrounding the cicatrix, by the incessant movement is apt to become unstable and to produce fits. Some cases of traumatic epilepsy are thus caused. Further,

if the cortical irritation be continued, encephalitis is occasionally produced, often appearing in a chronic form and long remaining so, though susceptible of being lit up into an acute affection. If the temperature remains high, active interference is apt to induce an extension of the encephalitis. Operation in such cases should be, when possible, postponed. The disregard of this advice, has to my knowledge in one instance, hastened the fatal issue, encephalitis becoming rapidly general.

Can the Sac in Spina Bifida be Successfully Removed?

Dr. F. J. Groner, B. S., Big Rapids, Mich., says: June 28, 1888, I operated on a three months old son of J.Menary for tumor in cervical region of spine. The sac was an inch in diameter at birth, and during the first month had grown rapidly so that at the time of operating it was three and a half inches in diameter. The opening into the spinal canal would admit an adults thumb. I did the operation aseptically; dissected the tissue away until the pedicle was reached; it was transfixed and tied with cat-gut, the sac was removed with scissors. There was some escape of fluid from the pedicle; to stop this I passed a hare-lip-pin through, and applied the figure of eight suture, using cat-gut. The integument was drawn firmly over the pedicle, the head of the pin protruding from the wound, and an antiseptic dressing applied. In 48 hours the dressing was raised enough to grasp the pin with forceps and remove it. On removing the dressing on the seventh day the wound was found closed excepting a slight portion in the centre. The child at no time showed signs of fever or discomfort, and the operation is a complete success.

I simply raise the question whether the whole matter of prognosis in these cases so far as surgical procedure is concerned can not be entirely changed? Abdominal and brain surgery has been revolutionized by aseptic measures. Here is a field where the most eminent surgeons have failed, and why can not success be attained here as well as it has been in other regions which a few years ago were considered sacred from the surgeon's knife. There is a case of successful removal of tumor of the spinal cord reported by Mr. Horsley. We will be interested in hearing reports from other surgeons. We can prevent shock by anesthetics, we can close the wound so that the spinal fiuid can not escape; and by aseptic and antiseptic measures we can prevent inflammation. We should secure better results than have been attained.

The Neurosis of Heart Disease.

The nervous symptoms accompanying cases of heart disease are often numerous, and their combination is frequently curious, and not always easily explained on physiological principles. Sometimes the physician finds a large heart with valvular disease, and simply faintness as the only troublesome symptom, and this but an occasional one. Physicians have not seldom been called upon to treat distressing nausea, sometimes with diarrhea and without any signs pointing to an altered state of the mucous membrane; the heart cannot be said to have failed in its compensation; the tongue may be normally clean; the stools present nothing abnormal, except that they sink in water and are too loose, time not having been allowed for the natural changes incidental to residence in the large bowel. We all know the troublesome, often barking, cough not necessarily associated with congestion of the lungs secondary to the valvular deficiency. No doubt many of the symptoms are to be explained on the view of inequality, if not inadequacy, of the circulation through the abdominal and thoracic viscera, or through the brain and spinal cord; but it seems that we must recognize pure neurosis not so caused, and a careful study of the patient's previous and family history will bring out the neuropathic tendency as well as the rheumatic relationship. Sometimes, in fact, the nervous symptoms are not so much the effect of the heart disease as of a pre-existing neurotic susceptibility which may have

actually developed—for example, in chorea—before the rheumatism had involved the valves of the heart. Those who advocate the nervous origin of rheumatism would perceive nothing antagonistic to their belief in this mode of viewing this subject.

Combined Chloroform and Cocaine Anesthesia.

Professor Obalinski, of Cracow, remarking the antagonism between chloroform and cocaine, determined to take advantage of it in anesthesia for operative purposes, and has now employed the combined chloroform and cocaine method in twenty-four cases with, as he states, the most satisfactory results. He first administers chloroform by means of an Esmarch's mask until the stage of tolerance is reached, which is generally in from four to twelve minutes, with the use of from 1 to 3 drachms of chloroform. He then injects into the region about to be operated on a solution of cocaine of the strength of from three to five per cent, the total quantity of cocaine injected being from three- to five-sevenths of a grain. Even more than this might, he thinks, be safely used, both because chloroform is the best antidote to cocaine and because part of the cocaine is about to be removed from the body by the operation. After the injection no more chloroform is, as a rule, given, unless in protracted operations, when very small quantities are administered at considerable intervals. For this method several advantages are claimed, among others the following: A smaller quantity of chloroform is sufficient; vomiting is very rare; the depression on awaking is much slighter than when chloroform only is used. The only disagreeable symptoms which Professor Obalinski has observed have been excitement and throwing about of the arms in some nervous people, but as this occurs when chloroform alone is used, it is not at all certain that it ought to be ascribed to the cocaine. He recommends the combined method for extensive operations, finding the local use of cocaine usually quite sufficient to render minor operations painless.

Race and Insanity.

Dr. H. M. Bannister (*Am. Jour. Insanity*) concludes an able study thus:

1. That in the white race the depressive types of mental disease are most frequent in the Germanic and Scandinavian peoples, and least so in the Celts; the reverse of this appears to be the case as to the exalted or maniacal types.

3. That general paralysis is not a disorder to which any race is immune, but one that depends upon causes independent of racial or national peculiarities.

3. That the well known fact that insanity is much more common amongst the foreign born than amongst natives in this country, is not to any great extent explainable by the shipment of the defective classes of Europe to America. The "cranks" and epileptics and other neurotic individuals do not appear to be represented, in due proportion even, amongst the foreigners in our asylums. The cause of the excess of foreign born insane in this country is, it seems probable, to be looked for mainly in the fact that, supposing the immigration to include only its proportion of persons below the average of mental strength and flexibility, the change of scene and associations, the difficulties of beginning life among them, disappointments, homesickness, and all other accidents and trials that befall the newcomers, together contribute to break down mentally a vast number who under other circumstances would have escaped, and largely contribute to the mass of insanity in this country.

Dr. Chas. H. Merz, the house physician to the University Hospital at Cleveland, O., April 25, 1887, said: I have made use of Papine for some time past, both in hospital and private practice, and find it a most agreeable substitute for morphine and opium. It is the anodyne par excellence.

ORIGINAL ARTICLES.

PURULENT OPHTHALMIA.

BY S. G. DABNEY, M. D.,

Professor of Physiology and Clinical Lecturer on Diseases of the Eye, Ear and Throat in Hospital College of Medicine, Visiting Surgeon to Eye and Ear Department of the Louisville City Hospital, Louisville, Ky.

Read before the McDowell Medical Society of Kentucky Nov. 1, 1888.

If any apology is needed for presenting to you a paper on so well known a subject as purulent ophthalmia, it must be that the disease is one which both the ophthalmic specialist and the general practitioner are called upon to treat and in which the treatment, while of great importance, is not altogether a settled question. I shall confine my remarks to the two most common forms of suppurative conjunctivitis,namely gonorrheal and that which occurs in children soon after birth and is known as ophthalmia neonatorum. The discovery of the gonococcus by Neisser and the confirmation of its importance by numerous others not only settles the question of the cause of gonorrheal inflammation, but in doubtful cases may become the pivotal point in diagnosis. The introduction of the gonococcus into the eye is usually by means of matter conveyed from the urethra on the finger, towel or other such agent, or by its direct reception from another eye similarly diseased.

It is perhaps well to mention that another ocular affection sometimes occurs as a result of gonorrhea, namely, iritis; this is preceded by gonorrheal rheumatism,most frequently of the knee, and presents an array of symptoms and a clinical history quite unlike that of purulent conjunctivitis, though they may occasionally occur at the same time.

The diagnosis of gonorrheal ophthalmia is usually easy; in a typical case we find the upper lid tense and swollen and perhaps hanging over the lower; it is sumetimes difficult to separate the lids, and in doing so, if the stage of secretion has been reached, the surgeon should be careful that no particle of matter flies into his own eye; the palpebral mucous membrane is greatly swollen and in the early stages tense and dry, while later it is thrown into folds and the papilæ are prominent; the ocular conjunctiva is injected, and there is usually decided chemosis; discharge soon becomes abundant and purulent and runs down over the cheek; the patient complains of a feeling of tenseness and heat and often of severe pain in the eye, and in some cases there is decided febrile reaction. The great danger of purulent ophthalmia is that the cornea will become involved; this may happen either as a result of the intense chemosis, which by its pressure cuts off the supply of nutrition to the cornea, or may follow its invasion by infectious matter, or be produced by the friction of the tense and rough palpebral conjunctiva. All important as it is to determine whether the cornea is implicated, it is not always possible to do so in the early stages of the disease; especially difficult is it to examine the corneal margin, which is often overlapped by the chemosed conjunctiva, and yet it is just at the margin that the ulceration frequently occurs; besides this marginal ulceration there may also appear superficial ulcers,which tend to extends both on the surface and into the corneal tissue, or a diffuse corneal infiltration. Turning now to the important question of treatment we may divide it into general and local.

In the very beginning it is well to open the bowels with a good dose of calomel; though the modern method of administering this drug in fractional doses, frequently repeated, is generally to be preferred, I believe that in gonorr eal ophthalmia we will do best to administer a single dose of at least 3 to 5 grs. The local treatment must vary according to the stage of the disease; at first when the mucous membrane is still tense, and secretion not yet established, no caustic application should be made, but our therapeutics should be limited to cold and antisepsis, compresses soaked in a 1 to 4000 solution of bichloride of mercury are laid on a block of ice until thoroughly cold and then placed on the eye

and renewed as soon as they begin to get warm.

Dr. Albert G. Heyl, of Philadelphia, presented before the State Medical Society of Pennsylvania in June 1886, a paper on purulent ophthalmia and its treatment by hot water applications, which was published in the September number of the *Arch. of Oph.* of that year. Dr. Heyl's ingenious, though it seems to me not fully established, theory as to the advantages of hot water is briefly as follows: The superficial cylindrical epithelium of the palpebral conjunctiva furnishes the field for invasion and the pabulum for the gonococcus; the older the cell and the less its vitality, the more readily does it yield to the attacks of the coccus; hot applications, by stimulating cellular activity, enable the cylindrical epithelium to resist the invasion of the gonococcus and thus deprive it of the support necessary for its existence. In the same way Dr. Heyl maintains that applications of nitrate of silver by destroying the superficial epithelium withdraw from the gonococcus the pabulum upon which it lives.

I find the same explanation as to the nitrate of silver advanced by Schmeichler, in a recent number of the *Wiener Med. Woch.*, while from the investigations of Weeks *Arch. Ophthal.*, Dec. 1887), it appears that nitrate of silver holds a high rank as a germicide and thus perhaps it acts in gonorrheal ophthalmia.

To revert, for an instant, to the choice of hot or cold applications, I have tried both in a number of cases and found cold usually the most agreeable to the patient, and at least as effective; there is but one condition in which I think heat decidedly to be preferred, and that is where the cornea is already infiltrated or ulcerated; continued application of cold would be likely to further depress the vitality of the tissue. When the stage of secretion has begun, the most important element of treatment consists in the thorough and frequent removal of a purulent matter; this is often no easy task, for not only is the formation of pus very rapid but the great swelling of the lids and conjunctiva renders its thorough removal difficult. When this is the case it is well to have an assistant carefully open the lids and so far as possible raise the upper one while the surgeon gently syringes the cleansing agent into the eye and under the lids in such a way that it will flow out on the temporal side, and thus not increase the dangers of the other eye.

A solution of the bichloride of mercury of a strength of 1 to 4000 is a suitable cleansing agent, but I believe that it is comparatively immaterial what agent we use provided it be used frequently and thoroughly; often the process of cleansing must be repeated every hour or half hour, and must be kept up at night as well as day; if possible, the patient should be put in the hands of a competent nurse, whose sole duty it is to care for him. It is at this stage of profuse secretion and relaxed mucous membrane that the application of nitrate of silver is indicated.

Although there are some oculists, and of large experience too, who exclude this agent from their practice entirely, yet the weight of the authority is greatly in favor of its judicious use, and one who has so used it in a few cases is not likely to be willing to discard it.

The most efficient mode of application is by dipping a camel's hair brush in the solution and brushing it over the palpebral conjunctiva; another brush dipped in a solution of common salt should then be carried over the conjunctiva to nutralize any excess of the silver. Occasionally it is better to drop the solution of silver and then of salt into the eye with a medicine dropper.

Although the solid caustic is sometimes used and, on the other hand, solutions as weak as 5 grains to the ounce, the most serviceable strength will usually be 30 or 40 grs. to the ounce.

There are two conditions in which I believe the nitrate of silver to be misapplied in gonorrheal ophthalmia; first, when used before secretion has become abundant while the conjunctiva is still tense, and again, at a

later stage when the cornea has become ulcerated; if used at all in the latter event it should be very carefully neutralized with the solution of salt. Moreover, the efficacy of the nitrate of silver is sometimes brought into discredit by those who rely upon it too much to the exclusion of other principles of treatment, equally essential—chief of which is the utmost possible cleanliness. To diminish the pressure of the swollen lids on the eyeball, to produce local depletion and thus lessen the chemosis and at the same time allow of more perfect cleansing, we may cut through the skin and muscle of the outer canthus, or, as I prefer, apply two or three leeches near the outer angle of the orbit; after this the swelling of the lids and chemosis often become much less, and thus the corneal integrity is less threatened. As soon as possible we should carefully inspect the whole surface of the cornea, and our prognosis and further treatment must depend on its condition; if it is clear from any cloudiness or ulceration, the same remedies should be continued according to their indications, and our prognosis may be good; if there is any cloudiness and more especially any ulcer of the cornea, the sulphate of eserine (solution gr. ij. to the oz. of water) should be instilled every 4 or 5 hours and especial caution exercised in the use of nitrate of silver.

The repair of corneal ulcers is retarded and their liability to perforation is increased by the tension of the eye and whatever lowers this tension for the time being, promotes the cure of the ulcer; myotics, such as eserine or pilocarpine undoubtedly have this effect, and I believe that a number of eyes could be saved, which are now lost, if eserine were used instead of atropia in extensive corneal ulcerations. The following case, occurring during my service in the ear and eye department of the Louisville hospital this summer, illustrates the above line of treatment and the good results which may be obtained even when the cornea is seriously affected. The notes of the case were very kindly furnished me by Dr. H. S. Utz, the resident physician in charge of that department of the hospital.

Lee T., colored, aged 20, entered the hospital July 6, '88 with gonorrheal ophthalmia in the right eye; the eye had become affected on July 4, from using a towel that had been used for other purposes, (the patient was still suffering from gonorrhea.) When he applied at the hospital the lids were very much swollen with a great deal of chemosis and an enormous quantity of pus discharging from the diseased structures. The patient complained of intense pain when any attempt was made to open the lids. The treatment was first an application of nitrate ef silver—ʒi to ℥i; this was applied after cocainizing the parts; then, the eye was thoroughly cleaned every hour with a bichloride solution (1-4000) and cold constantly applied. The bowels were opened freely in the beginning with a calomel purgative. After this treatment had been kept up for several days, the patient became somewhat unruly and it was difficult to have the proper applications made. At this time a solution of nitrate of silver, gr. xx to ℥i, was used and the lids being still much swollen and chemosis decided, two leeches were applied to the right temple. The swelling now rapidly abated. When it was possible to make a careful examination of the cornea, a marginal crescentic ulcer was found at its upper border and involving about $^3/_7$ of its circumference. Sulphate of eserine (gr.ii to oz.) was now prescribed—one drop in the eye every 3 hours. The final result in this case was a perfect cure, the patient being discharged on August 19. I do not think Dr. Utz overestimates the extent of the corneal ulcer, it was at least $^3/_7$ of the circumference and I am certain the improvement in it was prompt and continuous from the time the eserine was used. Of course only where one eye is affected with purulent ophthalmia, and that is the case usnally at first, it is of great importance to protect the other eye; this may be done by carefully covering it with a light bandage, of by the so-called Buller's shield, in which a watch glass is enclosed between two pieces of adhesive plaster, the outermost of which is fastened to the rim of the orbit. Of ophthalmia neona-

torum, I will say but little; it is sometimes but not generally gonorrheal; whether this is the case or not can only be determined positively by the presence of the gonococcus; the discharge is sometimes quite bloody, but this need cause no alarm; the danger lies in the implication of the cornea and when this occurs the same treatment should be instituted as in gonorrheal ophthalmia; besides the contraindications to nitrate of silver, mentioned already there is one other, namely, when the inflammatory product takes on a membranous form—the palpebral conjunctiva being covered by a thin pellicle which can be wiped off entire or in pieces; such cases are especially tedious and liable to corneal involvement and in them, I think, the hot applications are most serviceable.

The statement made by Schmeichler in the *Wiener Medizinische Wochenschrift*, above quoted, that the bichloride solution had not fulfilled what was expected of it in this disease and is not so useful in most cases as nitrate of silver, exactly accords with the experience I have had. In many German lying in hospitals it is a routine practic to put a few drops of a 10 gr. to the oz. solution of nitrate of silver in the eyes of every new born child, and statistics show that the percentage of cases of ophthalmia neonatorum has thereby been greatly reduced; such a course would be especially advisable when the mother had suffered from leucorrhea or gonorrhea.

TWO CASES—A FIBRO-MYXO-CHONDROMA OF THE NECK, AND AN ABDOMINAL CYSTIC TUMOR WITH TWISTED PEDICLE.

BY H. H. MUDD, M. D.

Reported at a meeting of the St. Louis Medical Society, October 20, 1888.

For discussion see page 522.

The specimen which I will first present is a fibro-myxo-chondroma. It was removed from a woman aged 56 years. Nineteen years ago a little nodule appeared under the skin near the right ear, and from this the tumor has developed. There was no interference with the general health until the skin over the tumor became so thin by stretching that the blood vessels, which were large and well developed, ulcerated, and she had a number of hemorrhages from them. The skin was apparently not adherent at any place except here and there to a blood-vessel; and at these points the skin gave way upon the slightest touch.

The tumor presented a nodular outline; there was a consistency about it which so nearly simulated fluctuation that I suspected cystic degeneration. We found upon removing it that it was a solid tumor, myxomatous in character, and very largely composed of mucoid tissue. The tumor was upon the right side, seemingly taking its deepest attachment about the angle of the jaw, the stern-ocleido-mastoideus was behind and overlapping the growth posteriorly. The deeper vessels could be felt passing to the inner side and in front.

The question of removal became urgent, and the possibility of its removal was discussed, the time for operative interference had arrived for the hemorrhage and ulceration, if allowed to continue, would result in the death of the patient which was threatened and impending.

I thought the removal of the tumor was possible because of its comparatively superficial attachment, and because I could feel the larger vessels running well towards the inner side, and only seemingly held forward by a deep nodule which presented behind them. The tumor itself measured in the vertical circumference 28½ inches, in its transverse circumference 24 inches.

The operation was not very difficult, nor did the patient lose much blood. I cut well out on the tumor because the skin had been pulled from the face, from the sternum, from the chest and from the side of the neck to cover the tumor. I enucleated it without much difficulty. The only point of difficulty was about the angle of the jaw, where it had its deeper attachment, and these were separated without disturbing any of the larger

nerves or blood-vessels. We stopped in the progress of the operation to ligate the arteries and vessels as they were exposed. The patient bore the operation well, and came out from under the influence of the ether well. I approximated the line of incision easily, and I think in doing so I made a mistake. I believe it would have been better if I had left the wound open and treated it as an open wound. I have had some experience that ought to have impressed this upon me, and I think the propriety of leaving an open wound after opening such a mass of loose vascular connective tissue where it has been stretched over such a mass as this, and it has been allowed to contract and double on itself is not to be questioned. We have here long, loose connective tissue which is vascular; and it resumes its normal relations, as it retracts when liberated from such a tumor as this. I believe if we leave an open wound it will gives us less trouble. As it was, this case did suppurate. The patient would have recovered so far as the wound itself was concerned, had she not developed a pneumonia; nine days after the operation she died from pneumonia.

These chondromata develop in soft tissue occasionally, particularly from the parotid gland, from the testes, from the breast and lungs, where there is an abundance of tissue that might give rise to it.

In connection with this case, and as illustrative of the tumors which develop in such enormous masses, I will show a photograph illustrating a case which I saw some years ago and which was probably a fibroma or fibromyxoma. That tumor produced the death of the patient, although it was not removed by operation, just as was threatening and impending in this case, by ulceration of the tumor and the consequent exhaustion.

Cystic Tumor with Twisted Pedicle.

I have here another specimen which is very interesting, although it is partially spoiled by decomposition. It was taken from a woman aged 41 years, a large, fleshy woman who menstruated regularly and without disturbance until last May when she noticed a fulness of the abdomen and suffered with an acute attack of pain. She had a second attack of pain in June, another in July and two in September. These attacks of severe pain were in the abdominal region, usually on the left side and were accompanied by fever, prostration, vomiting, and by obstruction of the bowel in the last attack. I saw her first in September at which time quite a large tumor was easily distinguished.

At that time she had a peritonitis which was quite marked, without obstruction of the bowel. After a few days of quiet and the administration of opium and the use of the ice-coil to the abdomen, she recovered and we waited, hoping that she would gain strength. On the third day she had another attack of the peritonitis which was quite marked. This second attack in which I saw her, I call peritonitis and yet I think the chief element of the attack was septic poisoning from twisting with obstruction of the pedicle. There was effusion into the ovarian sac, in the wall, and a hemorrhage into the sac itself. The pulse went up to 150, the temperature to 103° or 104°; the abdominal distention was very marked and the patient came very near dying in this attack of sepsis. After three days, improvement was manifest and she was free from fever. The next day we operated. When we cut down upon the part we found a black tumor, soft, adherent throughout to the abdominal wall wherever it came in contact with it, and adherent also to the intestines. The adhesions were easily separated, the tumor enuncleated, and the fluid evacuated. The pedicle was easily reached, it was thickened, larger than the thumb, and rotated upon itself so there were possibly two or two and a half complete turns of the vascular, thick pedicle and above this the tumor seemed to have rotated itself upon the apex of the pedicle, as it were, and cut off completely the blood supply above this point, the rotation occurring in the looser tissue immediately about the tumor. The pedicle was ligated and the tumor removed, the abdomen washed out with hot

water, a drainage tube put in place and the wound closed as usual.

The progress of the patient was very satisfactory, there was very little discharge from the drainage tube, which was removed the next day and the wound closed. The patient made a good recovery, without any disturbance of any kind.

The point of interest in this specimen is the twists in the pedicle. That seems, however, not to be such a rare occurrence. Out of six hundred cases Thornton reports fifty-seven twisted pedicles, of these two had been twisted to such an extent as to completely cut off the pedicle from the tumor, the tumor becoming transplanted, the pedicle was twisted off and the tumor was nourished by its adhesions to the peritoneal surface. The condition here shows very clearly the pathologicel changes which go on in such a case. We have the twisting and with it generally an acute pain, of which this patient gave abundant evidence; with the acute pain you have some thickening of the pedicle and some engorgement of the veins for the freerer flow through the arteries with obstruction to venous return results in the congestion of the sac of the tumor, as was the case here. There is also hemorrhage into and infiltration of the cyst wall itself, and it seems strange when the twisting was as firm as it was here and the severance was so complete that it did not cause gangrene. Thornton discusses the influences which favor the development of rotation, and he places among these as chief causes, the function of menstruation, the function of pregnancy, and the married condition, the peristaltic action of the intestines and sudden changes in position. Prominent also among the causes of rotation seem to be the irregularities of the surface of the tumor, such as are most frequently found in dermoid tumors. Among the 57 cases of twisting, 11 were in dermoid cysts. The change of position of the patient, the rolling from side to side has no doubt a marked influence in the development of this condition.

The dangers accompanying such a condi- are first excessive hemorrhage that may follow the rupture of blood-vessels in the cysts itself; death having sometimes resulted from such a condition; second, the development of a peritonitis and sepsis, as was shown in this case to be dangerous elements. A rapid enlargement of the cyst seems to occur in this condition and rupture has been known to occur in a cyst wall from this twist in the pedicle. If the twist is at all gradual, the part seems to accommodate itself to this condition, and the changes are less dangerous, but there is a time when it becomes abrupt and acute, and an acute inflammation is developed with it, because the nutrition of the cyst wall is disturbed to such an extent as to result either in inflammation, rupture or possibly gangrene.

Thornton says that in several cases he has been able to diagnosticate the condition by bimanual manipulation thus detecting the thickened pedicle. I was not able to do that in this case, but from the history I suspected the condition; when the peritonitis subsided the septic condition passed off, and the patient presented nearly a normal condition, I doubted the diagnosis.

Tumors have been known to shrink, disappear and become absorbed under such action as the twisting of the pedicle.

If the operation is made after acute stage has passed off, after the peritonitis has subsided, it seems to present pretty nearly as favorable results as ordinary tumors.

There was one point that I was glad to see emphasized in the article of Thornton, which I think is a most valuable one, that is the fact that operations upon the peritoneum during the acute inflammatory process is almost a hopeless procedure. Thornton makes this statement and my experience, which is of course limited, coincides with his. It is rather a sad fact. The chances of recovery are much better if we wait until the acute attack has passed off, and it seems to me better practice even when the patient seems about to succumb, to wait for the acute attack to subside rather than to interfere during the acute process. I believe this caution about operating during the acute peritonitis should

be observed not only in reference to these tumors but also with reference to operations upon the abdomen cavity for other purposes. I think an operation during an acute general peritonitis is almost hopeless.

The tables given by Thornton show that about six per cent of ovarian tumors are dermoid and that 9 to 13 per cent have twisted pedicles. I have seen but one twist, but I operated upon three dermoid cysts and have seen three other dermoid cysts.

THE American Public Health Association will convene at Milwaukee, Wisconsin, Tuesday Nov. 20, at 10 o'clock A. M., and continue four days. The meetings will be held in the Atheneum Hall.

The following topics have been selected for consideration:

1. The pollution of the water supply. 2. The disposal of refuse matter of cities. 3. Animal diseases dangerous to man. 4. Maritine quarantine, and regulations for the control of contagious and infectious diseases, and their mutual relations.

Precedence will be given papers upon the above subjects, although other papers of a sanitary nature will be received by the committee. The topics given indicate the subjects which it is desired to consider, yet they are not to be regarded as the exclusive topics of the meeting. Papers of ability and practical application upon any subject connected with the public health interests will be received.

PEDICULUS PUBIS.—The treatment of pediculus pubis by the usual blue ointment has so many inconveniences, with its disagreeable application and its toxic after-effects, that the use of the well-known antiparasitic action of salicylic acid has of late been much extolled. The formula given is:

℞	Salicylic acid	2 to 3 parts.
	Toilet vinegar	25 parts.
	Alcohol (80 per cent)	75 parts.

The parts are to be rubbed with a piece of flannel wet with the mixture. In most cases a single application will be enough to destroy the pediculi.—*New Eng. Med. Monthly.*

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, NOVEMBER 10, 1888.

EXTIRPATION OF A MENINGOCELE.

Now that operations that but a few years ago were considered among the "things impossible" are being daily added to the list of surgical achievements, the temptation is great for surgeons to report their unusual cases before time has proven the beneficial results which seem evident within a short time after operating. For this reason it should be specially gratifying to the profession to read of such cases as the one reported by Dr. W. O. Roberts, of Louisville, Ky., at the McDowell Medical Society meeting, Nov. 1.

Immediately after the birth of a child a tumor half the size of a goose-egg was noticed just below the external occipital protuberance. It was exquisitely sensitive, the slightest touch causing the child to cry violently, distending the tumor. On this account the child could not lie upon its back. The tumor grew larger and at the end of four weeks it had doubled its original size.

At this time Dr. Roberts had the child placed under chloroform and he made an elliptical incision through skin and fascia around the neck of the tumor, which he carefully dissected from the surrounding tissue, and then transfixed it with stout silk ligatures, tieing both ways close to the skull. The tumor was removed and found to contain two ounces of serous fluid slightly tinged with blood. The opening in the cranium was one inch in length vertically and ½ inch horizontally. The wound was dressed antiseptically, provision being made for drainage.

The little patient recovered with no unfavorable symptoms, and was taken from the infirmary on the tenth day, the wound having healed perfectly. The deep silk ligatures did not come away.

Five months later the child was perfectly well and there was no evidence of a return of the growth or of hydrocephalus. Dr. Roberts called attention to the fact that the death-rate following extirpation in these cases was very great. He advises that the operation be done early.

In this connection, an article: Can the Sac of a Spina Bifida be Successfully Removed? on page 510, will be of interest to our readers.

Recurrent Hemorrhages from the Larynx and Pharynx.

Several interesting contributions upon this subject have recently been made to current medical literature in this country and in England. Hemorrhage from the air passages is a phenomenon which is nearly always thought to be the result of a serious lesion. Many a patient has carried a burden for years, from which he would have been relieved had he known that the blood which he expectorated from time to time was not necesarily of pulmonary origin.

Since observation has been directed to this subject it has been found that many cases of supposed hemoptysis have been the result of simple ulceration or even abrasion of the mucous membrane of the upper air passages. In a small proportion of cases hemorrhage from the larynx and pharynx may be due to diseases in which blood changes occur, but more frequently the cause is local. It is safe to say that in the majority of cases of this latter class, the local condition is not a serious one. It is true that laryngeal hemorrhage has been reported in cases of tuberculous laryngitis and in a few cases of cancerous ulceration, while Turck has reported a case of fatal hemorrhage from syphilitic ulceration of the larynx.

In the great majority of cases in which we have hemorrhage from this region the local condition is simple inflammatory with general distension of the smaller blood vessels. In such patients the effect of a local application of an astringent is usually sufficient to afford at least temporary relief. The important practical point is, that such a hemorrhage may almost always be readily distinguished from the bleeding of a pulmonary lesion. In all cases of recurrent hemorrhage from the air passages a careful inspection of the larynx and pharynx should be made. This can be done by one not specially skilled in the use of the laryngoscope. Sometimes the blood will be found slowly trickling down from behind the soft palate, or its origin may be seen in the pharynx by direct inspection.

In addition to the literature furnished by American authors valuable papers have recently been written by Dr. Jamison and Dr. Percy Kidd, of London and Dr. Hodgkinson, Manchester. This subject also formed one of the important discussions in the section of laryngology at the last International Congress. It is not our purpose here to review this literature but only to again call attention to the importance of a direct diagnosis in such cases.

William Porter.

The American Academy of Medicine.

The annual meeting of this organization will be held in the Governor's Rooms of the New York Hospital, 8 West 16th St., New York City, Nov. 13 and 14.

From the list of papers on the programme it seems that one of the chief objects of the academy is to discuss and if possible devise means by which the standard of medical education in this country may be improved upon. One of the papers to be read by Dr. Charles C. Lee, of New York, "The Necessity for Post-Graduate Instruction in the Present State of American Medical Education," will be of especial interest to the profession.

The place of meeting indicates that the presentation of clinical material will be one of the chief features of the meeting but this is quite foreign to the programme.

The annual collation of the Academy will be held on the first day of the meeting at 9 A.M., at Martinelli's. Fifth Ave.

A Change of Editors of the Journal of the A. M. A.

Before this issue of the Review reaches our readers, it is probable that a new editor of the journal of the American Medical Association will have been chosen.

It has long been known that the venerable and beloved Dr. N. S. Davis having carried the burden of the journal work from the beginning has desired to be relieved from the duties of the office of editor in chief. How well his work has been done, let the columns of the journal answer. How earnest and successful have been his efforts to add to the strength of the Association by the power of the press, let the last half decade tell.

Long may the father of the American Medical Asaociation yet live to see the noble inheritance which he has planned for his child, grow into a rich possession of recorded thought.

The new editor is Dr. John B. Hamilton, well-known through his organization of the Marine Hospital service, and even more distinguished as the secretary general of the last International Congress. Tne great task of editing the prooeedings of the Congress has just been happily completed by him, and is a fitting introduction to his place in the editor's sanctum.

Dr. Hamilton is a young man, active, erudite and positive. He will be warmly supported by the best men in the profession from every section. No one who understands the possibilities of the great national journal, will doubt the statement, that it can be made the foremost in the great army of medical periodicals of the country.

We congratulate the coming editor, for his is a most auspicious future. We congratulate the retiring leader, for he has built a monument for himself and for the profession, which will grow stronger with every bright record, and larger with each year.

The Case Book.

During the busy winter season many physicians in active practice fail to record cases of importance which a large experience brings within their reach. Much of value is in consequence either lost to the profession or imperfectly recalled in after days. There is no volume perhaps more valuable to a practitioner than his own case book, if correctly kept.

"Thou hast not lost a day of which thou hast a record." He who fails in this not only robs himself of his past but is not a good steward in his relations to others. The practice of medicine leads us from one point to another with amazing rapidity, and we frequently lose sight of valuable conclusions if we trust to our memory alone.

This applies not only to general results but to individual cases. I well remember a physician who had a patient with an idiosyncrasy as to the effect of a certain drug. After one disastrions experience and the lapse of some time the patient returned and the same drug was prescribed with the same result. Some months later the drug was prescribed the third time. The physician had forgotten the former trials. The first time was pardoned, the second overlooked but the third time the patient aptly said "if you cannot remember sir, you should have a note book."

When the gentle secretaries of the different societies remind us next spring that certain papers are expected, the few minutes which may have been spent at the close of each winter's day in jotting down that day's experience will be found a good investment.

William Porter.

A Thousand Dollar Verdict.

The *London Lvncet* states that a death from chloroform occurred in Sydney; and a lawsuit brought by the husband of the deceased resulted in a verdict of guilty, setting the damages at £200, on the ground that the anesthetic was improperly administered,

and that the patient was subsequently neglected.

This forcibly presents the responsibility that every physician assumes when he places a patient under any anesthetic whatever. We all know that accidents may occur even with the most experienced.

In speaking of the above case the *Lnncet* says: "It particularly impresses the necessity of obtaining the intelligent consent of any responsible relatives before employing an anesthetic, and also of adhering strictly to rule in its administration so as to leave no possible avenue for injurious reflections."

If a patient be kept under ether for a few minutes only, and he regains his consciousness quickly and thoroughly, no after danger need be apprehended. But if profound anesthesia be produced, or if the patient be kept unconscious for 20 minutes or longer, the physician should be very sure that his patient has fully recovered before he leaves the house.

In the case above referred to, no data are given upon which to base an opinion as to the justice of the suit.

An Unjust Suit for Malpractice.

So great is the propensity of the human mind to find a cause for every effect observed that often some irrelevant coincident event is made to serve as a cause, when the real cause is obscure or unknown. Especially is this true in regard to disease.

The *National Druggist* states that Dr. Castleman, a reputable physician of Houston, Texas, prescribed a mixture containing one and a half grains of antipyrin, and five or six minims of spirits of nitrous ether to the dose, for a child suffering from malarial congestion, the thermometer in the child's mouth registered 105° F. Shortly after taking the second dose the child went into convulsions, and in the course of eight or ten hours was dead. The parents of the child, instigated by a physician who had heard of the reputed toxicity of the combination of the two drugs, have brought suit against Dr. Castleman for malpractice.

Two or three similar cases have been reported which led Dr. Ludwig Bremer of this city to make an investigation as to the toxic effects of the compound formed by mixing antipyrin and sweet spirits of nitre. Dr. Bremer gave it as his opinion that the compound possessed no poisonous properties. The editor of the *National Druggist* tested the toxicity of the crystals, not only upon lower animals, but upon himself. His experience confirms the opinion rendered by Dr. Bremer.

Dr. Castleman will fight the suit, and justice demands that he shall win. The ignorant grief stricken parents are to be pitied, but what can be said in behalf of the man who instigated the parents to bring the suit? It is to be hoped that he will reap his reward in the contempt of both the profession and the laity in Houston.

Clinics in London.

A London correspondent to the *N. Y. Med. Jour.*, writes that the physicians and surgeons of the various special hospitals of London, do what they can to show cases to visiting physicians, but they are of necessity unable to give the time requisite for a thorough explanation of any individual case. The practice in the hospitals there is open to professional men, but the instruction is not systematized as it should be. A physician who has acquired the habit of observation and hard study, will find all that he wishes in these hospitals, as the clinical material is abundant.

A thorough knowledge of a few cases is better than a superficial knowledge of many. Physicians are not compelled to go to Europe nowadays to acquire a knowledge of disease.

The *Med. Reg.*, says that it is rumored that Dr. Nicholas Senn, of Milwaukee, the discoverer of the hydrogen gas test for wounds of the alimentary canal, will be tendered Prof. D. Hayes Agnew's chair in the University of

Pennsylvania, upon the resignation of the latter, which is said will follow very soon. Dr. Senn has done a great work for humanity,and is deserving of honor.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Oct. 20, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. H. H. Mudd reported a case of myxochondroma of the neck.

Dr. T. F. Prewivt.—The tumor removed by Dr. Mudd attained a very large size, and the operation must have been rather a formidable one for the patient. But I must say that in my experience there is no portion of the body where tumors are removed with greater facility or where patients do better than in the neck. Whenever I can get a patient through an operation for tumor about the neck, without killing him at the time, I feel pretty confident that he will recover; the parts are vascular and heal kindly. In a patient 56 years old, certainly the operation must have been rather formidable.

Dr. Mudd.—My experience is not such as would be indicated by the remarks of Dr. Prewitt, with reference to the safety of operations about the neck. It is very true that we have there tissue that heals readily and quickly; it is vascular; it is the best material perhaps for plastic operations; it is the best region for rapid healing of wounds, and yet my experience is that in operations of any considerable moment about the neck we are indanger of severe shock, and that the shock is out of proportion to the extent of the operation. I remember distinctly one patient who came near dying 36 hours after the operation, from secondary shock.

It is a region that is closely connected with many important functions and the nerves which supply the heart and lungs pass through the region and there can be no question but what disturbance by pressure such as we had in this case, on removal of such a mass as this would produce some disturbance, some change in the functional activity of these parts, and to this disturbance is due the profound shock. In the case I have just reported the patient had very little shock; she was a wiry, active, energetic woman, and bore the operation remarkably well. The pneumonia was well developed on the sixth or seventh day and she died on the ninth day from pneumonia. Possibly the wound may have been a factor in the development of the pneumonia.

Dr. F. J. Lutz.—Was there any other supposable cause for the pneumonia than the surgical wound?

Dr. Mudd.—No, nothing that I know of; there was no especial exposure to cold. I have had three patients lately who developed pneumonia after operations, one of them after an operation for traumatic injury with a large effusion of blood. In an ovariotomy which I performed, the patient had a very severe pneumonia from which she came near dying without seemingly any disturbance in the abdominal region. The abdominal wound healed kindly by first intention. I believe the pneumonia was developed by a diffuse bronchitis which came from the inhalation of the ether. Patient finally recovered.

Dr. F. J. Luez.—I would like ta ask Dr. Mudd whether the treatment of the twisted pedicle differs essentially from the treatment of the pedicle under ordinary conditions.

Dr. Mudd.—I treated this pedicle just as I would an ordinary pedicle, simply put a double ligature about it. I transfixed it and put a ligature upon either side and cut the pedicle off through the thickened portion. The pedicle gave no trouble during convalescence. I was surprised at the absence of serous exudation after the operation; there was not enough escape from the tube to saturate the first compress that was put about the tube, during the 36 hours the tube was in position.

Dr. Bond.—This is a very interesting case and presents some very interesting questions, and I hope the gentlemen will discuss it thoroughly, especially with regard to the

propriety of operating during the existence of the acute peritonitis.

Dr. Prewitt.—It has been my fortune to meet with several dermoid cysts, but not to operate upon them. In one case there was fluctuation and some threatened obstruction of the bowels. I thrust in a trochar, and in drawing it out some fatty material that is so frequently seen in dermoid cysts came away and with it a long red hair. It remained in the opening and of course excited suppuration. After I was satisfied that adhesions had taken place, I enlarged the opening and took out quite a large bunch of this long reddish hair, and a tooth or two; the cavity was kept clean, the lining of the sac sloughed and came away, and the patient recovered. Several years ago I met with another case of dermoid cyst. The patient had several attacks of intense pain in the abdomen. I discovered what I thought was a tumor in the left side. I made no further investigation but told her I thought there was a tumor there and that after she recovered from the acute attack it would be well to have the matter investigated.

The attacks continued to recur, the case became worse and worse, the patient died, and I made a post mortem. We found a dermoid cyst with a twist in the pedicle once and a half around. The tumor was darkened and looked as if the vessels were almost ready to give way, and the circulation had evidently been very greatly disturbed; no rupture, however, of blood vessels, giving rise to active hemorrhage, had occurred. The small intestine was wrapped around the pedicle in such a way as to cause obstruction of the bowel. Now the symptoms were so acute and the condition such that while we spoke of opening the abdomen, we did not think it advisable to do it, in fact, we were not quite as ready at that time to open the abdominal cavity as we are now. I agree with Mr. Thornton in that it is certainly a very unfavorable time to operate, when there are acute symptoms present indicating a peritonitis, and that is why it is all important to operate in obstruction of the bowel before the peritonitis is established.

Dr. Bond.—I would like to ask Dr. Mudd what would have been the result of the delayed operation if the peritonitis had been due to a rupture of that cyst.

Dr. Mudd.—That would have been one of the conditions where it would be proper to face the dangers of acute peritonitis. Such conditions are possible and not very infrequent in perforating, peritonitis or peritonitis from obstruction. Fortunately, in connection with ovarian cysts, rupture is rare. Operating in such cases is like facing the last chance; it is a desperate condition, it is a dernier ressort. In a case of twisted pedicle I would, with Thornton's experience to confirm my decision, consider it injudicious to interfere during the acute attack of peritonitis, because the history is that acute attacks subside, and that gangrene of the tumor does not supervene. It is a rare thing to have gangrene of an ovarian cyst from twisting of the pedicle, if it ever occurs. He does not give a case in the 57, in which it occurred. In all the cases of dermoid cysts upon which I have operated I have had recoveries. The question whether to operate upon an ovarian tumor during the continuance of an active peritonitis is, I think, the most important question. My own experience and that of my immediate confreres has led me to the conclusion that it is a very desperate condition that demands an operation during an acute attack of peritonitis.

Dr. Lutz.—In connection with the answer of Dr. Mudd to the question propounded by our president in regard to operation after a perforation of the cyst wall, I would like to ask him whether the degree of collapse associated with the condition is not an important factor in determining what we are to do. My notion about the matter is that in cases of perforation associated with collapse, an operation ordinarily meaus a burial certificate; that has been my idea from what I have seen of it. The perforation, associated with the profound collapse, to say nothing of the peritonitis usually causes death.

Dr. Mudd.—I have a limited experience to guide me in this matter, but I think that one

of the chief dangers in operating during acute peritonitis is in the shock entailed upon the patient. The shock is, no doubt, much greater in the handling and cleansing of the cavity during acute peritonitis than in the normal condition. I believe this is the condition that makes the operation during peritonitis dangerous. I certainly should feel like waiting for a time to see if the patient would recover from the shock of such an effusion. If I knew I had to deal with an ovarian tumor with extensive effusion into the abdominal cavity, and with shock, I should not wait; if I had to deal with a limited effusion and great shock, I should wait a little while for the shock to pass off, taking my chances upon the development of the peritonitis rather than interfere during profound shock.

Dr. Bond.—I can not state with absolute assurance, but it is my impression that Mr. Tait permits the peritonitis to be a guide as to the necessity for operation in these doubtful cases in which he supposes that there may be some abdominal condition in the nature of a ruptured tumor or twisted pedicle which has led to the peritonitis, and in such cases the existence of the peritonitis constitutes with him the occasion for the operation.

Dr. Prewitt.—I was just going to state that I do not think it is accepted that the existence of peritonitis contra-indicates an operation, but it is an unfortunate condition; it is a condition which compels the operator to take the chances under the circumstances. I think Mr. Tait does regard it as an indication for an operation. Not that he prefers to perform it under the circumstances, but that it must be done, and quite a number of successful operations have been reported where the operation was done during the existence of peritonitis. I read the other day of a case of ovarian tumor where there was a well marked peritonitis, in which an operation was performed, and the patient recovered without difficulty.

Dr. Mudd.—I have nothing to say except to again refer to the influence of peritonitis in operations. It is a well known fact, and so generally recognized, that chronic peritonitis is rather a protection to the patient and the operator than a detriment. Fortunately, we are not often called upon to perform ovariotomy during an acute peritonitis. The case related this evening was just recovering from such an attack. I have had 89 per cent of recoveries in ovariotomy during the past two years. There are operators, among them some Americans, who say that acute inflammation does not make any difference, as the cavity can be flooded with pus with impunity, and an acute peritonitis is not a detriment or a contra indication to operative interference, but I think the weight of authority is clearly on the other side, and that an acute peritonitis is recognized as certainly a very dangerous complication in this operation, and very often a contra-indication to interference. We recognize the fact that we have to face this danger in many conditions, and that is possibly the lesser one of two evils, and not so much less than the other evil of non-interference as to make it very desirable. It may yet be proved that non-interference will save as many cases as an operation during the presence of an acute peritonitis, and yet there are indications that all of us recognize as demanding immediate interference during any condition of inflammatory action of the peritoneum. That Mr. Thornton's advice is very good in connection with twisted pedicle is, I am sure, established by the facts.

Gun-Shot Wound of Stomach.

Dr. Dalton.—This specimen was taken from a Chinaman, 25 years of age, who received a gun-shot wound while in a stooping posture, shortly after he had eaten a large supper. He was shot with a 38 calibre ball. The bullet entered between the fourth and fifth ribs, a little anterior to the left axillary line. There was not much shock; in fact there was very little. His pulse was 90, his temperature, 99¼°, his respiration, 24. He was suffering very little pain. Percussion gave a little more resonance than normal over the liver; he referred the pain to the site of entrance of the bullet. I put him upon the

table and administered an anesthetic, and resected the fourth rib about an inch, in order to get at the wound, and I saw the omentum protruding through the diaphragm about two inches from the abdominal wall. There was considerable hemorrhage from the diaphragm and also a good deal of blood in the pleural cavity. Dr. Meisenbach applied the Senn method and I introduced the glass tube through the diaphragm, and was particular that the distal extremity was not occluded by the omentum or any of the tissues, so that the Senn method was given a fair test, and it gave negative results; the hemorrhage ceased very soon, and we supposed there was no injury to the alimentary canal. I put a rubber tube through the diaphragm, sewed the diaphragm tightly around it, passed it out at the thoracic wound, and packed the wound with absorbent gauze.

During the administration of the anesthetic, while his abdomen was greatly distended, he came near dying several times. I think that point has not been mentioned, and it should be watched, as there is great danger of death from this cause; respiration is so much embarrassed that the patient is apt to die.

After the operation the patient did fairly well. His pulse went up to 105 or 106; his temperature rose the next morning to 101° F. Toward noon he grew worse and died that night at ten o'clock. The post-mortem was made next day, 26 hours after the receipt of the injury, and disclosed two holes in the stomach about three or four inches from the cardia, both quite large, also a hole through the kidney; the bullet had lodged in the psoas muscle. There was a good deal of hemorrhage found in the abdominal cavity, a considerable quantity in the pelvic cavity, and as the drainage tube had come out of the diaphragm, there was considerable blood in the pleural cavity.

The point I desire to make is a signal failure of the Senn method. The post-mortem revealed the fact that there was a large quantity of food in the stomach. When it was raised up none of the food passed out; nor was any extravasated into the abdominal cavity at the time of injury. When we took the stomach out the food in it was very thick. I think if the patient had been turned upon his side and the gas allowed to escape through the holes the method would have been a success, but as we did not know the character of the injury we could not think of those things. I think Senn's method is a good one, we should use it as a means of diagnosis, but should not rely upon it entirely. When a bullet enters the peritoneal cavity, the Senn method to the contrary notwithstanding, we should go in and see the amount of injury. I think that will be the ultimate position of the profession in the matter. I do not think we should rely upon the method too much, as other organs besides the intestines may be injured, as in this case. In the application of the method the stomach and intestines were well inflated with gas as there were eructations of gas frequently during its use. We used the wax taper. The gas did not pass out of the wound.

The patient vomited shortly after being put upon the table, but there was no blood in the matter vomited nor was there any blood in the urine which was drawn shortly after his admission.

Dr. Meisenbach.—There were no physical signs in the condition of the patient going to show that there was a wound of the stomach; there was no pain referable to the epigastric region and no vomiting of blood, which are the conditions which almost always occur in injuries of this organ. The urine was normal in quantity and quality.

We have then a wound of the diaphragm two inches from the insertion of the muscle to the ribs. With the man lying on his back we had the wound much higher than the level of the peritoneal cavity. We have here a stomach overdistended with food, and while in a prone position the gas filled the intestinal tract in all directions; filling the stomach, of course, because on account of its specific gravity it rises to the highest point and presed the food down into the openings and against the diaphragm and against the peri-

toneum and prevented the passage of the gas through the wound. If the man had been in any other position than the one which he was placed in, it is probable that the operation would have been successful. This point should be remembered in making the test.

In regard to Senn's method, I will say that I believe in it to-day just as much as I did on the day that I first saw it tried at Cincinnati. I believe it is all that Dr. Senn claims for it. provided the minutiæ of the administration of the gas are perfectly carried out. In wounds about the abdomen and chest,wounds on the anterior surface of the abdomen, the patient should lie on the back. In wounds of the back part of the chest the patient should lie on the belly; in case of lateral wounds on the abdomen or chest the patient should be placed upon the opposite side in order to allow the liquids that exist in the cavities of the body to gravitate away from the wound. I think if all these things are carefully studied and kept in mind there will be no trouble about the test. I applied the test in a stab case, where we had a wound of a somewhat similar character to this, although it was not a gunshot wound, but it was an opening of the peritoneal cavity in the region of the stomach. We applied Senn's test and we could find no penetration and we came to the conclusion that there was no perforation in the intestinal tract. We sewed the man up and he got well. Right upon the heels of that case comes this one where there was a wound of a somewhat similar nature, although of course it differed in many respects, in which we did not get any indications of perforation of the cavity, yet there was a perforation of the stomach; and why? Because there was a mechanical obstruction which prevented the escape of the gas into the wound.

Dr. A. Glasgow.—I would like to ask Dr. Dalton what caused this man's death?

Dr. Dalton.—I suppose he died from shock and from hemorrhage from the kidney, which added to the shock.

Dr. F. A. Glasgow.—I asked that question because it brings to my mind a case which I had under my charge in 1878 at the city hospital; an almost identical case. The man was shot in the chest, inside the nipple almost at the apex of the heart, breaking the fifth rib; he was shot directly in front, the assailant standing from 10 to 15 feet away, and the bullet passed in horizontally and passed down back, almost in the very direction which this bullet took; it passed through a portion of the lung. There were no symptoms which led us to suppose that the intestines were wounded, but there was a pyothorax developed. When the pyo-thorax was observed, an opening was made into the cavity a tube put in, and I washed out the chest cavity for several weeks, and in washing it out the fluid would enter the lung and the man would cough it up. This patient got well and left the hospital. He came back in about three months and died of pyo-thorax and at the post-mortem we found that the course of the bullet was almost exactly the same as in this case, except there was no injury of the stomach. It passed through the diaphragm, through the left kidney and lodged just at the crest of the ilium near the ileo-cecal junction. There were no symptoms of kidney trouble in that case, and I may say there was no possibility for the man to recover eventually because each kidney was a mass of abscesses—not only the injured kidney but the one on the opposite side; yet that man got so well as to leave the hospital and did not die for some time after.

So far as Senn's method is concerned, I do not see what good it can do in such a case as this. Dr. Meisenbach says you may force out some gas into the peritoneal cavity. That is true and you will probably force out some of the contents of the stomach, and we know that injuries of the stomach and injuries to other cavities are not necessarily fatal, and that may have been true in this case. I think it is possible that this man might have lived without an operation.

Dr. Lutz.—The most enthusiastic advocate of the insufflation of hydrogen gas, will not undertake to say that it is the only diagnostic sign and the only symptom by which we

should determine our course in treating wounds of the abdomen. It is a well-known fact in connection with gun-shot wounds of the abdomen, that wounds of the anterior portion are liable to be inflicted without injury to the intestines or the viscera of the abdomen, but it is an equally well known fact, proven by observations on the human subject and by experiments, that lateral wounds—wounds inflicted from the side are far more frequently associated with visceral injuries than those in the anterior portion of the abdomen, and Dr. Dalton will bear me out when I say that when I saw the man I said to him that the stomach was perforated.

I believe that in addition to Senn's test, the anatomical location of the wound should influence us. Of course, no one could know that the man's stomach happened to be full of food which occluded the openings and which Dr. Dalton states was of such a size as to prevent its escape from the wound in the stomach.

Dr. Dalton.—I accomplished in this case exactly what I expected, elicited a thorough discussion of the Senn method. I said that I believed we should use it as a method of diagnosis, but we shonld not depend upon it entirely; we should use it as one of the means, and it is a very valuable means of diagnosis, but this case has proven that it is fallacious to depend upon it, it misleads us. Dr. Lutz said it was not necessary to anesthetize the patient in order to apply the Senn test. Nobody could determiue that the abdominal cavity had been penetrated unless he did as I did, resected the rib, and examined it and found the wound in the abdominal cavity, you could not guess it, especially as the symptoms did not point to an injury of the abdominal cavity, and we could not resect the rib without using an anesthetic. The doctor will remember that the stomach was wounded in its extreme left border, the stomach was very full of food, so much so that he vomited as much as two ordinary persons would eat, and his stomach was found to be half full of food when removed. I take it that the stomach was protruding very far to the left owing to its distended condition, the wound shows that there is only a very small isthmus of stomach tissue between the two holes, showing tdat the bullet just did strike the left border. I think if the stomach had been empty it would not have been injured.

SELECTIONS.

THERAPEUTIC INDICATIONS FOR THE USE OF CANNABIS INDICA.

For several years the writer has given some attention to the study of the clinical value and applications of cannabis indica, and now that this drug is receiving somewhat more attention on the part of physicians than heretofore, it may be well to place before the profession a portion of the results of this observation. This disposition is further prompted by reason of the fact that many times this remedy is used in combination with other drugs, and all the credit is given to the one under consideration. To clear up this matter, therefore, it will best suit our purpose to consider the character of these combinations which are used with cannabis indica, in order to learn what influence these different ingredients may have upon the various affections to which it has been applied. In the space at our disposal, it will be impossible to go into the whole subject fully, and the remarks will, therefore, he confined to the use of the drug in the treatment of neuralgic affections, and in derangements of the alimentary canal.

As long ago as the summer of 1883, the writer took exception to a practice which he has just condemned, that of giving to a single drug the credit of producing an effect which was due to a combination of drugs, a short communication appearing in one of the medical journals of that year. In that instance cannabis was used in combination with chloroform for the relief of menorrhagia, and all the credit was given to that remedy, chloroform being a factor entirely overlooked.

The fact is, that both these remedies are valuable for this affection, and they may be

used with very good effect separately, but of this we shall have to speak later on, when pointing out personal experience.

This remedy has been used in India, and from there has found its way to England, and eventually has reached this country, being used in the treatment of dysentery, diarrhea, and cholera, and in places where these diseases are unusually prevalent, the patients have become so well acquainted with the treatment that they ask for the green medicine. The formula will be found in the *Med. and Surg. Reporter* (September 3, 1887.) According to the formula, each dose contains not only ten minims of the tincture of cannabis indica, but there is in addition thereto the following: spirits of chloroform, ten minims; tincture of kino, one drachm; and peppermint water, one ounce. Now, we all know that either one of the above adjuvants are valuable remedies when properly used. Chloroform is an important ingredient of chlorodyne; the tincture of kino is an active astringent, while the simple use of peppermint water will often correct diarrhea and looseness of the bowels which ordinary treatment fails to check. This latter condition was observed in the case of an elderly gentleman coming under treatment about two years ago. For the preceding two years he had suffered greatly from looseness of the bowels, but his only reliance had been a small vial of peppermint water, and, although he took the medicine prescribed, it was necessary to reenforce its action by means of the little vial. With suitable treatment, and removal of the cause, this tendency wholly disappeared. Still another formula has been imported from India, and finds its way into the *Am. Jour. of Med. Sci.*, (April, 1888.) Here, as usual, cannabis indica is highly extolled as a remedy in the treatment of diarrhea, but the dose includes, in addition to twenty minims of the tincture of this drug, ten grains of bismuth subnitrate, twenty minims of spirits of chloroform half a drachm of mucilage acacia, and one ounce of cinnamon water. It is needless in this case to go over the same course of reasoning as that we have just finished, as the same rules apply to the one as to the other. Reference to the "Annual of the Universal Medical Sciences" does not throw much light upon this subject, except that the remedy has been used successfully in the treatment of nearly all forms of diarrhea, but more especially in summer diarrhea, the drug being used in combination with chloroform, morphine, and the aromatic spirits of ammonia. The same publication also mentions a paper by Mackenzie in which he reports good success with cannabis for the relief of headache, the dose being one-third of a grain night and morning, increasing the same as may be required. At the same time, the editor suggests that a full dose of the drug will sometimes abort an attack of migraine, but that a dose sufficient for this purpose will cause some delirium of a temporary character. It may be just as well to note here that this delirium is not always a difficulty which can be readily overcome; hence, the remedy should be used with caution. The writer met with a patient who thinking that if the dose was repeated every five minutes, the effect would be far better than when the intervals were lengthened to ten minutes. The result was that in the course of an hour she was (subjectively) walking like a fly on the ceiling, although after a night's rest all was again serene. Dr. Hare (p. 531, *loc. cit.*) finds that large doses are required to act as a poison when the remedy is administered hypodermically—a fact which is of some importance when we think of the diseases affecting the liver and kidneys, as there is a general agreement that remedies entering the system through the circulation are excreted through the kidneys, while those which are taken into the stomach reach the liver,and are eliminated by that organ. We conclude,therefore,that the effect produced by the hypodermic use of cannabis indica should not be accepted as a criterion when estimating its effect when taken by the mouth, a small dose hypodermically being a large dose when taken into the stomach.

In addition to the paper already noticed on the use of cannabis in the treatment of mi-

graine, Mr. Richard Greene contributes a paper (*Prac.*, July, 1888), recording the results of three cases treated by him in this way, and ascribes great powers to the drug, saying that it will eventually become as valuable in the treatment of migraine as bromide of potassium is in the case of epilepsy. The dose recommended is one-third of a grain at night or both night and morning, and as a precaution, this author says that not more than one grain should be taken at a time.

From amongst all of these observers, it will be seen that but two of them have used the drug singly, and in all of the other instances the drugs which were added were, as a rule, quite sufficient to produce the effects which were claimed for cannabis indica, and, as a matter of course, under such conditions, the whole fabric erected upon this hypothetical foundation falls to the ground, leaving only the two pillars planted by Mackenzie and Greene, and as a contribution to this subject, the writer thinks it worth while to record his personal experience.

In the treatment of the cough of phthisis, either alone, in tablets of one-twentieth of a grain, or in combination with chloroform, it has proven an acceptable and valuable remedy. Dysmenorrhea, marked by painful menstruation, is favorably influenced by small and frequently repeated doses of cannabis. Such cases occur in young girls and in married ladies even without displacement, and every month the suffering increases, until they are finally compelled to consult a physician. To relieve the pain and make the patient comfortable is the duty of the physician, and a few drops of cannabis is quite sufficient. Five drops of the fluid extract having been placed in a dry glass or teacup, pour upon it four or five ounces of cold water, and direct the patient to take of this solution a teaspoonful every ten minutes for the first hour, then at intervals of an hour during the remainder of the day or evening. Perhaps at the expiration of the first hour the pain will have been materially assuaged, and in the course of a few hours the patient will be as well as ever. These attacks frequently appear just at the beginning of the menstrual molimen, and when the patient is put under the influence of cannabis the congestion causing the pain subsides and the flow begins. Within the past three years, at least fifty such cases have come under observation, and a failure has been the exception. Chloroform (ten or twelve drops on sugar, repeated in an hour) also answers the purpose quite as well, and may be used when convenient.

Supraorbital neuralgia has furnished its quota for treatment by this drug, and has been met by very flattering results, a majority of the cases where a proper selection has been made yielding readily to its influence There may be something in the method of administration, and directions are, therefore, appended. Prepare the remedy as in the cases just stated, the same amount, the same dose, and the same period for administration, and the physician need not be surprised if the pain subsides in the course of half an hour. The same method of treatment has been found available in the case of flatulence accompanied by pain; and where the tongue is foul and coated, a plan suggests itself of combining with this drug a few drops of nux vomica tincture. Sometimes the first dose is all that is required to relieve the patient and make him quite comfortable, and apparently the relief is immediate. Upon this topic we shall be glad to hear from our readers.—*Ed. Med. Reg.*

THE GERMAN TREATMENT OF OBESITY.

Dr. I. Burney Yeo, in the current number of the *Nineteenth Century*, discusses the Schweninger (Oertel) treatment of obesity, now popularized in Germany by a brochure which has gone through 16 editions.

This system of treatment, which can hardly be said to be Schweninger's being borrowed principally from Oertel, is directed mainly against the prevalent tendency (especially in Germany) to morbid obesity—in other words, to getting too fat. Dr. Yeo asks two practical questions: (1) Is there any

harm in getting fat? (2) When may a man be said to be getting too fat? and in reply to the first question, remarks that a very fair share of health and activity is not inconsistent, in some constitutions with a considerable amount of obesity. "As far as longevity is concerned, it may be some comfort to know that the tables of some of the American life insurance offices show that it is better to be much above the average weight than much below it; but it is better to be neither." He adds, however, that a great excess of weight due to an increased formation of fat is an abnormality closely bordering on disease. Such excess of adipose is, he says, almost always due to excess in eating, and fat persons who would get thinner should realize this fact. "A daily deposit of a quarter of an ounce of fat will, in ten years, increase the body by 57 pounds. Excess of food includes excess of the albuminous group (which has been proved to be fat-forming as well as flesh-forming), as well as the carbohydrates (fatty, starchy and saccharine foods). In the young and active, the food which they consume is appropriated in the building up of their tissues, and to the development of muscular and nervous energy; there is little or no excess or waste. When the age of growth has come to an end, but is succeeded by an active and vigorous life, food is needed to develop as much muscular and nervous energy as before, or more, but the food needed for growth is needed no longer. But when the period of growth and activity is succeeded by a life of inactivity or indolence or self-indulgence, then, if the same amount of food is taken as was consumed during the period of growth and vigorous exercise, there is a superfluity, which in some cases is deposited and accumulates in the organism in the form of an excessive amount of fat.

The consumption of alcohol favors polysarcia; so also does an indolent, inactive, luxurious life. Alcoholic stimulants restrain waste on well-known principles, and an indolent life promotes accumulation of force making materials far in excess of expenditure.

Dr. Yeo considers the "Banting" system, and objects to it that it rests on an erroneous scientific foundation, which overlooks the fact that fat can be formed out of nitrogenous food, out of the lean of meat, for instance, as well as out of carbo-hydrates. "Not only does it often induce subjective feelings of discomfort and bodily feebleness, a great loathing of the constant and exclusively meat diet, as well as digestive disturbances, which necessitate its interruption, but it fails, in the more serious cases, to relieve the feebleness of the heart, the tendency to congestion of the lungs, and even dropsy, which complicate the graver forms of excessive corpulency." Ebstein's "cure" allows all kinds of fatty food—the fat of meat, butter, cream, fatty sauces and soups, but prohibits the carbo-hydrates, such as sugar, potatoes, and all forms of starchy food, and of bread, permits at most, three and a half ounces a day. All kinds of meat in small quantity, as well as asparagus, spinach and cabbage are permitted. Dr. Yeo remarks that the success which has attended the Ebstein method must be referred mainly to the abstinence from the carbo-hydrates which it enforces, but it is hardly sufficiently supporting, and fails to relieve the heart-disturbances which attend extensive obesity.

The Schweninger (or rather the Oertel method) not only provides for the removal of excess of fat, but it also prevents its reaccumulation, and at the same time restores tone to the organs of circulation, which so often in cases of excessive obesity, is lost. Oertel's system agrees with those above given in reducing the carbo-hydrates in the diet of the obese. It allows more fat than the Banting formula, and nearly twice as much albuminous food as Ebstein's, less than half as much fat as the latter, and about twice as much carbo-hydrates. "This amount of fat and carbo-hydrates is admissible in those cases wehre active exercise can be and is taken, as muscular exertion is attended with a considerable destruction of fat, and the relative excess of albuminous food in this formula leads to the displacement of the fat accumulated in the substance of the muscles, and to a new

formation of muscular tissue in its place. At the same time, this diet protects the nitrogenous tissue from waste, a condition of health which is lost sight of in Ebstein's method. Indeed, the central idea in this cure is to strengthen the muscle of the heart, and this is aimed at, not only by a carefully considered dietary, but by the prescription of regular active bodily exercise and suitable gymnastics."

This method is somewhat modified in the management of those grave cases where the accumulation of fat about the heart has led to great embarrassment or perhaps degeneration of that organ, and to consequent visceral congestion, and even to dropsy. In such cases, the fat and carbohydrate of the food is still further reduced, and the amount of fluid consumed is severely restricted, and perspiration is promoted by vigorous bodily exercise, especially in climbing graduated ascents. The following, then, are the objects aimed at in this cure:

1. To improve the muscular tone of the heart.

2. To maintain the normal composition of the blood.

3. To regulate the quantity of fluid in the body.

4. To prevent the deposit of fat.

These objects are attained by the following means:

1. The muscle of the heart is strengthened by enforced exercise, such as climbing heights. This requires great care, and the exercise must be graded, the amount of work being increased as the patient can bear it.

2. To preserve the normal composition of the blood. the food should be chiefly albuminous. It may consist of the lean of roast, or boiled beef, veal, mutton, game, and eggs. Green vegetables (as cabbage or spinach), may be taken; fat and carbo-hydrates only in very limited quantity; from four to six ounces of bread per diem.

3. To regulate the quantity of fluid in the body the amount of fluid drunk daily must be limited. One cup (rather less than six ounces) of coffee, tea, or milk, morning and evening, and about 12 ounces of wine, and from eight to 16 ounces of water shall comprise all the fluid consumed in 24 hours. Beer is entirely forbidden. The discharge of fluid from the body is promoted by active exercise and occasionally by a course of baths, with packing.

4. To prevent the deposit of fat, the principles of diet already set forth must be carrid into practice as follows:

Morning.—One cup of tea or coffee with a little milk, altogether, about six ounces; bread about three ounces.

Noon.—Three to four ounces of soup,seven to eight ounces of roast or boiled beef, veal, game, salad or a lighter vegetable, a little fish (cooked wi-hout fat) if desired, one ounce of bread or farinaceous pudding (never more than three ounces), three to six ounces of fruit, fresh preferred. for dessert. It is desirable at this meal to avoid taking taking fluids, but in hot weather, or in the absence of fruits, six to eight ounces of light wine may be taken.

Afternoon.—The same amount of coffee or tea as in the morning, with, at most, six ounces of water, an ounce of bread as an exceptional indulgence.

Evening.—One or two soft-boiled eggs, an ounce of bread, perhaps, a small slice of cheese. Salad and fruit, six to eight ounces of wine, with four to five ounces of water.

Such briefly summarized, are the principles of his peculiarly German anti-fat regimen,for which, as Dr. Yeo rightly affirms, the credit almost entirely belongs to Professor Oertel, the main features of it having for years been set forth in his writings. These principles seem to commend themselves as sound,though their practical application will reqnire continued modification to adapt them to the stage of the affected, to the constitution and habits of the patient.—*Boston Med. and Surg. Jour.*

THE FIRST OPERATION ON THE FALLOPIAN TUBE.—The nationality of the first surgeon who performed ovariotomy and the place where that operation took place have often

been disputed, but now it is practically settled.

M. Schlesinger, of St. Petersburg, has discovered that the first case of operation on the Fallopian tube was performed in 1784 at Sarepta, Astrakhan Government, Russia. The case is noted in Dr. Monprofit's *Salpingitis et Ovaritis.*

A multiparous woman, aged 42, was taken ill after an abortion, and a painful tumor appeared in the right iliac fosaa. February 21, 1784, the operation was undertaken by a Dr. Seydel. An incision was made from the umbilicus to the right abdominal ring, passing over the middle of the tumor. The operator opened the peritoneum with a curved, probe-pointed bistoury. Three veins were tied, the protruding intestines were kept back by a napkin soaked in tepid milk. The tumor was attached by a pedicle to the uterus, and strongly adherent to the neighboring structures. The operator carefully examined its relations, and discovered that the ovary was distinct, the tumor being clearly tubal. "Qua quidem investigatione certo et indubitato cognovi tumoris hujus sedem non ovarium fuisse sed tubam." As it could not be removed it was laid open, washed out with a decoction of bark mixed with a solution of myrrh, and then stuffed with charpie soaked in balsam of Arceus. To prevent the intestines from adhering to the peritoneum pieces of linen, soaked in oil of roses, were supported by a plaster; later on sutures (sutura cruenta) were applied. Drainage by means of a silver tube did not answer so the operator aspirated, by suction with his month, the purulent fluid which collected in the cavity of the dilated tube. This was done four times a day, and the dressings were changed on every occasion. There was fever for a week, but in a fortnight's time the discharge ceased and the wound began to close, the patient recovered completely. At the end of two years Dr. Seydel heard from his patient; she was in perfect health. The operator was decidedly before his time.—*Brit. Med. Jour.*

The Diurnal Minimum of Vital Force. —The daily recurrence, even in health, of a period of depression of the vital forces, when unfavorable changes are prone to show themselves in the course of acute disease, has often been made the subject of study, and writers are pretty well agreed that such a period takes place in the early morning hours. The matter has lately been trhated of anew by Dr. Thomas Linn, an American physician practicing in Paris, in a monograph entitled "De l'habitude et de ses rapports avec 'hygiéne et la therapeutique." Dr. Linn's conclusions are, that there are certaih laws of habit that deserve the attention of physicians; that one of the most important manifestations of the periodicity of habit is the period vital depression that occurs between four and six o'clock in the morning; that special pains should be taken to tide sick persons over this period of feeble resistance, thereby possibly saving many patient's lives, and that the causes of habit and functional periodicity should be further investigated, with a view to improvement in managing them. Dr. Linn treats of various collateral topics of interest, and his brochure is well worth careful study.

The Advantage of Borax and Boric Acid.—The Paris correspondent of the *Jour. of the Med. Ass.*, Sept. 15, 1888, writes that Dr. Bedoin has pointed out the advantages of borax and boric acid. He stated: 1. Borate of soda or borax, and particularly boric acid, possess incontestable antiseptic properties,the activity of which is not so small as is generally affirmed. Both are recommended for the preservation of alimentary substances, such as milk, butter, cheese, eggs, butcher's meat. But owing to its almost absolute insipidity, boric acid should, for this purpose, be preferred to borax, the savor of which is disagreeable; both are absolutely innocuous. 2. Interiorly the therapeutic employment of boric acid as an antiseptic has already given very encouraging results, which are of a nature to authorize its administration in the affections where, till now, carbolic acid was almost exclusively employed, for example, typhoid fever. 3. Exteriorly, the antiseptic properties of borax, and particularly of boric acid, justify the generalization of their employment in surgery, notably in the practice of dressings after the manner of Lister, also in certain affections of the urinary organs, of the eyes, ears, and of the skin.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 20. ST. LOUIS, NOVEMBER 17, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

A CASE OF EXTIRPATION OF UTERUS AND ADNEXA FOR CARCINOMA.

BY GEO. F. HULBERT, M. D.,
Late Superintendent of the Female Hospital, St. Louis, Missouri.

MR. PRESIDENT.—I desire to place on record another operation of extirpation for carcinoma uteri, and present a report of the case.

Mrs. S., æt. 30 years, married 15 years, mother of seven children, of robust habit, giving an excellent history, both family and individual of no attack of severe illness, menstrual function has been normal and her labors of the usual type, followed by rapid and complete recoveries. Has never suffered from any disease of the pelvic organs save in recent years has had a few attacks of vesical irritability.

For three months before the discovery of the malignant growth she had been troubled with a more free menstrual flow, with a tendency toward increase of frequency of the period. At no time has she suffered from abortion or miscarriage.

The difficulty was considered functional, and so treated.

No odor was detected with the leucorrheal discharge which had appeared in connection with the increased menstrual flow. This led to an examination and diagnosis of malignant disease, affecting the anterior lips of cervix of the cauliflower species.

On June 6, 1888, three weeks after the growth was detected, an operation was performed removing the growth by curette and applying freely the chloride of zinc paste, the wound healed quickly and readily and patient returned home in excellent condition.

In about a month or six weeks a return of the growth, or enlargement of the anterior lips of the cervix was observed by her husband, who was a physician, situated more to the left than before and beneath the mucous membrane. He at once proceeded to this city and placed his wife under my care, and instructed me to do that which was for the best and held out the greatest chance of a recovery.

After an examination and consultation with Drs. Papin and Hypes extirpation was elicited as not only feasible but the proper thing to be done.

The conditions existing at the time of the operation were, free mobility of uterus, absence of pain or tenderness save the usual amount immediately preceding the menstrual flow, which was then three days late and hourly expected, and as far as the sense of touch could determine, the malignant growth was limited to the cervix at the anterior lip slightly to the left side. There was found no infiltration of the broad ligaments or cellular tissue about the cervix and the vagina seemed perfectly healthy.

The endo-cervical mucous membrane seemed affected and bled easily on the use of the sound.

The operation was performed Sept. 6, 1888, at 11 A. M., Drs. Papin, Hypes, Fry, Lemen, Dalton, Adams, Homan, and Murray being present.

The method was the same as that used before, opening Douglas' cul de sac, uniting the peritoneum and mucous membrane by continuous catgut sutures posteriorly, then ligating the inferior half of the broad ligaments with silk, freeing the anterior attachments from the bladder, and dissecting all around the cir-

vix up to the limit of the ligatures on the broad ligaments, then prolapsing the uterus, seizing the ovaries and turning out these and the end of the Fallopian tube, and ligating the superior part of the broad ligaments and freeing the the entire organ and adnexa. In my first incisions anteriorly, through a mistake in judgment on my part, I unfortunately opened the bladder. The dissection was finished and I attempted to close the opening in the bladder but it was found that the dissection was so close and the tissues so friable tearing on the most ordinary handling, that the result was not satisfactory, nor was there much hope that the wound would unite. This accident modified our original intentions, and instead of making a closed union of the anterior mucous and peritoneal surfaces, we simply pulled down the peritoneum and brought it in approximation with the posterior edge of the wound allowed the mucous membraneanteriorly to remain free,this brought the wound in the bladder well forward, and after placing the drainage tube for the peritoneum we placed a smaller one in the anterior space between the antiseptic tampon and the wound, hoping in this way to prevent any infiltration and give speedy exit to any urine that might be lost through the wound in the bladder. This was evidently accomplished, for on the third day urine began to flow through the tube freely, and the catheter which heretofore had been used did not find any urine in the bladder.

The progress of the patient, considering her previous history of vesical irritability and general demoralization from ether, was all that could be expected. After the third day there was severe suffering from vesical tenderness. The ether made her very sick and nauseated, which coupled with the necessary use of morphia, persisted with more or less severity until the sixth day. Her bowels not having moved and there being more or less distress and colicky pains present, she was given saline cathartics. The bowels finally, with much griping pain, moved freely. The catharsis persisted and the eighth day developed into a dysenteric attack with small bloody and mucous stools. This was controlled by full doses of opium and port wine. During all these complications and distressing sufferings at no time was there any evidence of septic or inflammatory action at the site of the wound. The pain and suffering was always vesical and rectal.

The temperature the first three days was hovering about 100°. It rose to 102° for a few hours only, on the third day, the pulse remained below 100 save on the third and seventh days. In fact, beyond the sufferings with the bladder and bowels there were no indications of trouble and her progress without these would have apparently been uninterrupted. In spite of these drawbacks she was fully convalescent on the twelfth day. The tampon and drainage tube were removed on the eighth day, the discharge and pus was also nil, the tampon being, in spite of the leakage from the bladder, perfectly sweet and clean. The wound healed promptly and kindly, and outside of the fistula our patient was ready for discharge on the twentieth day. Contrary to our better judgment an attempt was made to close the fistula on the thirty-ninth day following the operation of extirpation. The result was, as feared, a partial success, and showed very plainly why it was not a complete success; that part of the fistula anterior to the newly formed cicatrix in the roof of the vagina healed promptly, that part of the denudation which was near and in the site of the cicatrix failed to unite. The result was a closure of a fistula of the size of a silver half dollar to that of a dime.

The patient returned home to wait until the tissues have been fully and completely cicatrized before another effort will be made to entirely close the fistula, on the twelfth day following the last operation.

In the treatment of the opening into the bladder the dissection for the extent of an inch or more was so radical that nothing much but mucous membrane (vesical) was present. This may account for the great degree of friability found, for it was much more so than I have ever met in post-mortem work,

and I am satisfied that it cannot be accounted for by the hypothesis of infiltration of the malignant growth. There was no evidence of carcinomatous tissue at this site, and the result of the microscopic examination of the connective tissue outside of the diseased area shows an entire absence of malignant tissue. It is possible that her previous attacks of vesical trouble may have resulted in this condition. If it is ever my misfortune to again have this accident happen to me and I cannot as in this case accomplish a safe effective union by suture of the rent, the above method of treating the wound will not be adopted. It would seem where the probabilities are so strongly in favor of the presence of a fistula that this event had better be assured and the fistula be designedly placed so that the scar from the extirpation be removed from the fistula as far as possible. Such in my opinion can be accomplished in the following manner, and stage of proceedings in the operation. After completing the anterior dissection between the uterus and bladder, and before uniting the peritoneal apron, dissected up in separating the uterus and bladder, to the anterior wall of the vagina, make a button hole in the anterior vaginal wall well forwards and bringing the hole in the bladder down to it, unite the mucous membrane of the bladder and that of the anterior vaginal wall at the button hole by a continuous cat-gut suture. In this way a direct passage from bladder to vagina is assured; the connective tissue spaces are closed and we can proceed to unite the peritoneal apron and the edge of the anterior vaginal wall at the site of the original anterior incision and close up entirely the connective tissue space anteriorly, and accomplish the last step of the operation,the union of the anterior and posterior peritoneal surfaces.

In this way we get the same closed condition of the wound and abdominal cavity. This method will bring the fistulous opening below and free from the large scar formed at the site of the fornices, and more perfectly protect against infiltration as well as insure free draining of urine. In addition we make the fistula easily accessible, and can be better assured of a successful result from an early or consecutive operation to close it.

When we take into consideration the extensive dissection and ligature of blood vessels, the disturbance of nervous supply and demand made upon nutrition in general at this site after the operation of extirpation, it is questionable whether we are at all safe in attempting to close by suture any opening in the bladder we may be so unfortunate as to make. It is doubtful if we, even in the most favorable conditions will get union. If there was any peritoneal coat to approximate and aid us, this would probably be as favorable a site as the fundal part of the bladder. But this safeguard we do not have, and cannot get, and must trust entirely to their layers of connective, muscular and mucous tissue for the process of adhesion and repair. These classes of tissue do well enough where you have quantity enough. It is a question each and every one must decide for himself, but I am free to say that I will be very slow to again take the chances, but shall prefer to accept what seems the inevitable and attend to locating the fistula where I want it.

The result of the microscopic examination kindly made for me by Dr. Rohlfing of this city, shows the growth to be a carcinoma of the epithelial variety. His examination also shows that the connective tissue about the growth at the line of incision is free of infiltration and healthy. A small gland found on the anterior surface of the cervix at the level of the internal os is partly infiltrated. Beyond this it would seem that we had succeeded in removing the malignant growth in its entirety and the outlook is a favorable one for a non-recurrence.

The specimen presented is the entire uterus, tubes and ovaries. The body and endometrium seem perfectly healthy. Both ovaries contained a fully developed Graafian follicle in each; the left one contained a small cyst with firm, opaqne fibrous wall of great degree of strength, of two centimeters in diameter. The growth is confined to the cervix and endocervical membrane, to the

left anterior, situated deeply in the muscularis at this site; the diseased area is three centimeters in diameter, pointing to the free surface of the cervix, where it would have eventually ulcerated.

POPULAR ERRORS CONCERNING THE INSANE.

BY B. F. EAGER, M. D.,
Assistant Physician to the Western Lunatic Asylum, Hopkinsville, Ky.

Read by title at the McDowel Medical Society, Henderson, Ky., Nov. 1888.

MR. PRESIDENT AND GENTLEMEN.—I trust it may be profitable to speak of "Popular Errors Concerning the Insane." Much may be done by the profession to materially modify, if not wholly overcome these. This would certainly be a kindness both to this unfortunate class and their friends at home. It is natural, I suppose to judge all by one, and hence it is, I think, that having seen one or more cases of acute insanity, most people regard an asylum as a veritable "bedlam," a perfect confusion of tongues and noises, where all the inmates are wild and raving, restlessly roaming about from place to place like so many caged animals. Hence they ordinarly express surprise at the order and quiet they observe on entering any well regulated asylum for the first time, and usually ask to see the "wild ones."

The fact is no patient is continually wild and raving, except the most recent cases, and these pass shortly into a state of comparative quiet or speedily end in death. The liberty allowed and the natural going and coming do not harmonize with their idea of asylum life with its numberless restraints, and the impression is made upon the minds of many that special wards are kept for visitors and those wards occupied by the "wild ones" are never or possibly rarely opened for inspection.

There are excited periods among many or it may be almost all, of the chronic insane varying from a few hours to many days or weeks and intensity from increased talkativeness to the most violent destructiveness. Seclusion of these is not necessarily resorted to nor of the acute insane when the same traits are exhibited, the necessity of this being determined by their own danger or that of others, or when their destructiveness or turbulence is extreme.

For days at a time a whole flat containing from 40 to 70 patients, will have no restraints to record. Again one, two or three and sometimes as many as eight are secluded to prevent violence and destruction of property, to prevent escapes and promote quiet and to separate the naked and filthy from those more decent and orderly.

Few are constantly confined, and most of these because of their strongly homicidal tendencies, or insane and violent tempers would render them a continual menace to others both in and out of the asylum.

A few of those confined are wretchedly filthy and utterly indifferent to clothing, and both out of respect for them and their friends are confined to rooms not open to visitors. It would be a manifest unkindness to both to expose them to a simply curious public. Some, of course, are confined for self-protection during strong suicidal propensities or to remove them from excitement and give them quiet in which they may regain their composure and self-control These are not confined to a special ward with us and may be found at one time or another over the entire building, all more or less under the influence of those who are quiet, orderly and clean. These patients, whose confinement is necessary at times, are frequently passed unnoticed by visitors when they have the full liberty of the wards, though requiring the close supervision and firm control of the nurse to prevent an outbreak.

The point is that the "wild ones" are so seldom seen because they are so seldom wild, and when wild are better controlled and composed when exposed to the least excitement. Our statement of these facts, to say the least, is frequently discredited by the public, and concealments are supposed to exist from sinis-

ter motives, and the same cloud of suspicion and mystery continues to hang over asylums that floated out from the dark ages of ignorance and brutality both in and out of these institutions. Humane treatment in this age of enlightenment should extend sufficiently far to embrace all within its enclosures, for certainly those who devote themselves faithfully to the trying and exhausting duties of this life deserve, at least, common justice at the hands of the people, though naturally enough the unfortunate appeal most strongly to all that is best in man and make him jealous of their care.

Closely connected with this is another impression quite as deeply rooted in the public mind, and equally groundless—that lunatics are generally dangerous. We may all likely recall our own experience in entering an asylum for the first time, how timid we felt, how much safer we thought ourselves when near the officer accompanying us, always keeping nearer him than the patients, and, if possible, sandwiching him, so to speak, between ourselves and the dangerous lunatics, full of fear lest they become suddenly and uncontrollably violent.

Many, certainly, could pass through a room of tamed animals in charge of "keepers" with no more fear. Indeed such is the timidity of the average visitor to asylum wards, that there seems to be no ability or time to discriminate among the inmates; he is alike afraid of all; and when the round is made a long breath is drawn, and a sense of relief sweeps over him and, he congratulates himself on his narrow escape. And even this experience gives no remarkable confidence for the future—he will avoid and timidly shrink from lunatics who approach him at each successive visit. The mystery is why he comes at all. These statements may seem overdrawn, but it is a serious fact, notwithstanding, I believe, that the great majority of people visiting asylums stand in more or less dread of patients, and because they are afraid of bodily harm. I have never known a visitor harmed by a patient: neither do I remember to have heard or read of one, though a narrow escape occurred in this asylum many years ago, partly, at least, due to the carelessness of the visitor who allowed herself shut up in a room with a patient of peculiar delusions. Patients are so naturally offended by the manner and look of many visitors that the wonder is all do escape violence. This conduct varies in its effect on different patients—amusing, mortifying or angering those who observe it. Apply this to ourselves. How would we feel if people shrank from us as we walked the streets, and made manifest efforts to avoid us?

Things are as real to them (in their little, or it may be, big world) as to us. Indeed, more so, perhaps, on account of the directness and intensity of their thoughts and purposes. The sane and natural faculties are popularly supposed to be held in complete abeyance by the mental ailment—and hence one is always apprehending some insane freak, and only that. The fact is, the large majority may be appealed to in the same natural ways as other people—they are equally appreciative of and susceptible to kindness, and easy, unaffected and unsuspecting attention. Very few have delusions that of necessity render them dangerous, and even these may be managed successfully by tact and watchfulness. And my experience is that this class does not commonly drift to visiting strangers; they are reserved and seclusive, suspicious and watchful, unless, indeed, they are sometimes impelled by some great fancied danger to seek their protection or release from confinement.

I am much inclined to think, excepting a few cases of homicidal mania, that the common run of the asylum insane are about as little disposed to great violence as the majority of people without under the influence of temper. Some are more touch-me-not-like about their little affairs, just as we frequently find people in every day life; but the great majority are good natured and kindly disposed. Again, the insane are supposed by many to be utterly stupid or senseless, and the conduct growing out of this notion frequently embarrasses and wounds these unfor-

tunate people. It is a common occurrence for people to make remarks about this or that one, both in their presence and hearing, that never would be made before or about a sane person. Much of this may be due to thoughtlessness; but I am persuaded the largest share grows out of a total misunderstanding or ignorance of their real condition. "He has lost his mind" seems to convey the idea to most people that no mind is left: hence remarks would be as much appreciated or as well understood by them as by a nursery of infants. The proportion of demented patients is certainly not so large as to have given any just ground for such an impression. And even among these it is always well to be guarded, for many, at times at least, will thoroughly understand and be offended by remarks that are very personal and inconsiderate. Most people appreciate sympathy manifested in a delicate way, but few, if any, can tolerate blunt and sometimes coarse pity, such as one might bestow on a crippled animal, with just such curious gazing and talking. No one likes to be made "a show" of, and this is quite as true of the insane as the sane.

Again they are thought by many to be in a measure helpless, and surprise is expressed that they do their own ward work, such as cleaning, making up beds, attending to dining rooms and other work about the farm and garden, aside from sewing, etc., done among the females. This seems to be a conclusion from their supposed stupidity, hence many are likely to regard work, though done promptly and well as a sort of mechanical performance, and a hardship brought about by continued and driving force. They see no benefit from work, except possibly to the asylum, and are apt to conclude that because of their usefulness, the best workers are detained long after they should have been sent home. Indeed, many think if a patient is capable of work he is necessarily capable of caring for himself and should be discharged. Some friends even go so far as to request exemption from all the duties connected with the institution, under the mistaken notion that the asylum alone reaps an advantage, and that at the expense possibly of the patient's comfort and health.

Employment and exercise are lost sight of under a morbid sense of helplessness and hardship. This of course is a silly sentiment. The very large majority are more or less capable of work of some kind, and the benefit derived to them must be manifest to all who will think and reason about these matters, the helpfulness of exercise and employment, and the demoralization and destructiveness of idleness and inactivity. It is highly important that both healthful exercise should be taken, and diversion supplied the insane, if we would improve their bodily condition and change the current of insane thought. The mind must be rested if the best results are to be expected,hence, these things become remedial and not hurtful or cruel.

By many again it is thought the delusions entertained indicate the cause, for instance a man whose life by the way has been manifestly out of harmony with such a theory, talks when insane much or perhaps constantly about religion or the Bible, and the conclusion is at once reached by his relations and friends that too much religion, like the learning of Paul, has made him mad. Again a man may be harrassed and driven by the greatest fears, and fright is supposed to have disordered his mind, notwithstanding careful inquiry into the history of these patients fails to develop any substantial ground for these suppositions previous to mental perversion. And so we might go on enumerating cases, but these are sufficient to bring before you the point I wish to make—that delusions can not be relied upon in looking for a cause, though sometimes it is possible to gather a little information that might be helpful. The present condition of our patient is far more important in making up a course of treatment than speculation about causes. I am inclined to think the mind at the time it is most sensitive, somewhat like the photographer's plate, catches a certain shadow from the surroundings, and this may become the dominant thought, the leading delusion. Ordinarily delusions mean but little, besides indicating

somewhat the condition of the patient, his danger etc., and sometimes pointing to the lacality involved. In thus coming upon causes, I want to mention two that are fixed in the minds of many, some of whom are found in the profession,and that seem greatly out of proportion to the facts. I refer to masturbation and "female troubles."

I can not now recall but one or two cases pointing in the direction of masturbation,and even these may have been induced by sexual excess. It is certainly difficult if not impossible to distinguish by its nervous effects (well advanced) self-abuse from sexual abuse. Masturbation, it is true, is common among the insane, and so it is among the immates of our prisons, ordinary self-control being suspended in both, in the one, from a conscious hopelessness of the future, in the other from mental incapacity largely. The common prevalence and excess of this habit with seeming impunity among the sane make it at least an improbable active cause. I do not mean to defend this abominable and sinful habit, but I should like to urge caution in the formation of opinions.

"Female troubles" are very rarely treated in asylums as far as my observation extends, and yet the rate of recovery runs along as usual among the insane. That reflex disturbances and anxieties may and do arise in this class of troubles increasing the liability to insanity and possibly sometimes causing it, I do not deny; but this I think must be very exceptional for the reason mentioned. Again people commonly think a certain medicine exists for all these troubles, and many times are surprised and disappointed if they learn no course of this kind has been decided upon and even regard us with suspicion, perhaps think we are purposely obstructing the recovery of their friends for some pecuniary profit.

The fact is, as you all know, there are no specifics, that medicine is not always required, that the exhibition of medicine has done and may do serious harm. It is a fact that many patients recover wholly without medicine—simply by looking to proper nourishment and exercise and employment. Aside from that which tends to restore perfect bodily health but little is ordinarily done. It is worse than idle to encourage this notion, it is hurtful, because one may be so constrained by circumstances as to hastily seek results instead of waiting patiently upon time and surroundings. If we wait upon nature and only aid her in a rational way when the indications are plain we may at least count on doing no harm.

How should recovered patients be so cared for at home as to reasonably assure their suture? This certainly can not always be done; but relatives and friends should at least guard against a course of conduct more inclined to bring about a relapse. If reasonable the surroundings should be as little changed as possible at home—no changes should be made that would excite a suspicion in the mind of the patient as to the fears of family or friends. Fears must be suppressed if felt. Over-careful friends may do what they are trying not to do.Patients should be employed to promote health, occupy the mind and inspire hope and confidence.

They should have recreation that they may unbend at times as other people. Their habits should be regular; but this should be impressed upon them once for all that frequent caution which will excite their fears, may not be necessary. The past must be forgotten; and if mentioned by the patient should be discussed and dismissed as quietly and naturally as any other ailment. As much as possible shield them from acquaintances who can neither cease to remember their insanity or momentarily apprehend its reappearance. A great point is gained if we can banish fear from these minds. To do this fears should not be tolerated in those with whom they are associated. Separate them as much as possible from disturbing and depressing people and surroundings. Give them useful, renumerative work that will lay hold of the future and occupy them to the exclusion of the past, and don't permit a constant watch upon their every word and act. Do all you can for them at the start and give them a living chance. Now pardon me for

saying in conclusion as a sort of review: that very few patients are wild; fewer still dangerous and quite as few senseless or helpless; that the treatment of the insane is not made up of specifics but is a plain, common sense way of looking after the general health and surroundings; that causes are not indicated by delusions that "masturbation" and "female troubles" do not seem to be as active causes as many suppose, and that that the recovered insane should be cared for hopefully and naturally on their return, if we would surround them most favorably—we must make a useful and happy present if we wish for them a hopeful future.

Thus I believe the number of relapses might be perfectly diminished.

CASES IN SURGERY.

BY AP MORGAN VANCE, M.D., LOUISVILLE, KY.

Reported before the McDowell Medical Society, Henderson, Ky., November, 1 1888.

The first three cases in this report are presented as surgical curiosities, more than for any other reason.

Case I. Mrs. M. æt. 74, came under my observation three years ago, giving the following history: When 17 years of age she noticed an enlargement of the abdomen. She could not say whether it was more on one side than the other. This enlargement continued until she married at 34, and soon after this was tapped for the first time, and a large quantity of dark mucilaginous fluid was drawn off. The tapping was repeated at intervals of five or six weeks, for several years, the time between gradually increasing until she averaged about six tappings a year, the longest period being seven months, which was three years ago, just before I first saw her. She had then then been tapped 154 times. I have tapped her seven times, making 161 altogether.

Her present condition is as follows: She does not look as old as she is, the abdomen is tremendously enlarged, and the space between umbilicus and pubes is a solid cicatrix, looking as if a large load of bird shot had entered there. She is in good health in every other way, suffering only with vomiting for three or four weeks before each tapping, not submitting to this procedure until compelled to do so because of weakness due to starvation.

After removal of the fluid, which is accompanied by no shock or other trouble, she presents a very peculiar appearance. The ribs have been pressed very far forward, and all the abdominal contents that possibly could be, have been pressed up against the diaphragm, and do not descend. The great extent of abdominal wall falls back, making a kind of cavern, and looks and feels very much like tripe as sold in our markets.

The abdominal vessels can be plainly felt, as also the uterus, sacral prominence, etc.

The old lady knows more about paracentesis abdominalis than any body I have ever known, and requires that it be done according to her own directions or not at all. I never question the method, but yield any point to her greater experience. This is a very remarkable history, and I think its authenticity is unquestionable. Dr. Jno. Q. A. Stewart, formerly of Owensboro, now of Frankfort, operated on her for 17 years, an average of five times a year.

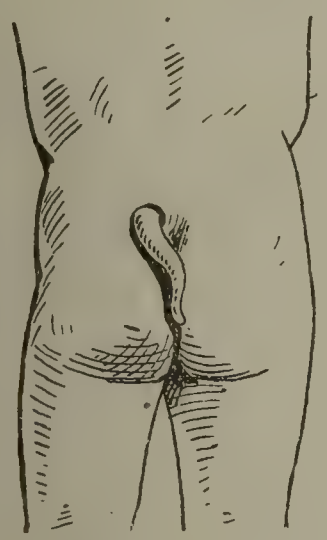
Dr. C. H. Todd, a member of this society, tapped her many times, as also did other physicians whom I have been unable to ask concerning her, some of them being dead, others living inMissouri.The accompanying skecthes will give an idea of the operation. It is beyond doubt an ovarian cyst. She never had children.

Case II. Mulatto girl, æt. 3½, was brought to me on account of an acquired clubfoot. During the examination it was discovered that the child was born with a tail.

The appendage grieved the grandmother very much, and she asked me to remove it, which I did under cocaine. The growth was suspended from one side of the gluteal cleft above opposite the middle of the sacrum.

There was no bone in it or prehensile power. It was exactly like a small pig's tail

At birth it measured one inch and a half, when removed it was four inches long. This is a curious freak of nature in the shape of a pendulous tumor.

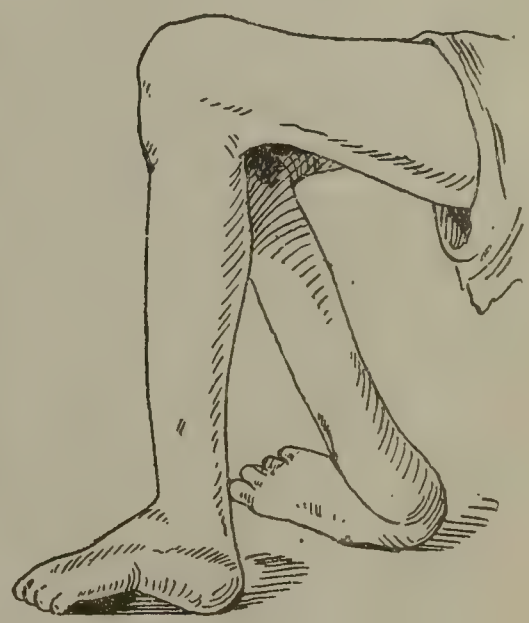


Case III A. F., single, æt. 21, called on me for advice in regard to an extreme dedeformity of both feet. He was very tall and thin, and gave me this history of the trouble. Family phthisical. His feet were perfect up to 8 years of age, when they gradually began to turn outward. He can give no explanation pointing to a cause, unless a tendency towards this position was produced by a pair of boots which were too short for him and turned over at the heels, thus putting a strain on the inner structures of the ankle joint.

There was no paralysis or any disease about the bones. Efforts had been made by braces to stop the progress of the deformity but with no avail, and when he came, the feet were the shape of the cast exhibited here. He measured six feet four inches as he stood on the ends of the tibiæ and I estimated that at least four inches were lost by the deformity. There was an ugly ulcerating condition of the parts of the feet which were pressed upon in walking.

I advised for his relief a double amputation below the knees, and the application of two artificial limbs. These operations were done at one seance on May 28, 1887, by the mixed methods of antero-posterior skin flap with circular incision of the muscles. There was no mishap during his convalesence and July 20, just seven weeks after the amputations, he walked out of Mr. Mathew's shop on two Bligh legs with only a stick, the first patient in the experience of this manufacturer who ever did this, even when only one limb was furnished by him.

The patient is now a theological student at Hanover, Ind., and can walk many miles without trouble. I saw him in Louisville two weeks since, and he told me he had walked four and a half miles that morning in one hour and twenty minutes over a country road.



This case is interesting as illustrating the the fact that conservatism in many of the incurable deformities about the feet is obsolete.

Old cases of adult clubfeet with painful bursæ, talipes the result of infantile paralysis where there is deformity with great shortening, the knee action being good, deformities and ulceration of stumps, the result of the recognized amputations about the tarsus, etc., can often be greatly benefited both as to happiness and usefulness by an amputation and the adjustment of a good artificial limb.

Case IV.—In September, 1884, W.M., æt. fourteen and a half years, referred to me by Dr.Bodine,came under my care for hip disease. A diagnosis of central osteitis of the femoral head was made at the first examination. The high shoe on the opposite foot and crutches were ordered, with tonic and supportiue treatment. At this time the history of favoring this limb for six months previously was obtained. There was ¾ inch atrophy of thigh, ½ inch of calf. All the motions were limited, flexion to 90° only being allowed; ne glandular infiltration; no sign of abscess or tumefaction about the joint. The crutches and high shoe were used in an imperfect way till January 20, 1886, without pain or any exaggeration of symptoms about the joint, except that the motion became a little free, and the atrophy increased. On this date acute symptoms appeared in the joint and the limb became fixed in the straight position. The patient was placed in bed, with weight and pulley attached, nine to twelve pounds being used,and a blister was applied over the joint. This treatment soon quieted the pain, and he remained in bed till April 8, 1½ inches actual shortening occurring during this period. After a consultation with Dr. J. M. Bodine and W. O. Roberts, it was decided to excise the diseased head of the bone as giving the best chance of relief. The boy was now sixteen, and in better general condition than at any time since coming under my observation,never having had any pain since the blister was applied. The exploring needle found soft bone at the head of the femur. The operation was done on the above date at the Norton Infirmary.

A crescent-shaped incision, four inches long, was made down to the bone, just back of the trochanter. (At this point I wish to state that there was so little external evidence of disease, that some of those present expressed an uneasiness that I might be cutting into a sound limb). By rapid dissection the head of the bone was extruded through the external wound, and gave every evidence of extensive disease, which was anticipated by the use of the exploring needle prior to making the incision; the bone from just below the lesser trochanter was removed, disease below was evident, and two more pieces,an inch or more in length, were sawed off, when extensive osteo-myelitis of the femoral shaft as far down as could be reached with the bone spoon, was discovered, the disease being confined to the femur. As there were no preparations made for an amputation, the patient was allowed to rally. Forty-eight hours subsequently the whole limb was removed by the following modification of the other methods in vogue: The bone having already been removed subperiosteally sufficiently far down to allow the application of the Esmarch bandage, so that the tourniquet would come above the bone, the amputation was proceeded with by the mixed method; skin flaps, antero-posteriorly, and circular incision of the muscles were made—no bone-sawing of course being required, as the circular division of the muscles corresponded with the upper end of the bone so nearly that the limb slipped away without difficulty.

The boy gradually recovered. The very remarkable feature in the case was the mildness of the symptoms presented in connection with the extensive character of the lesion. Bone-reproduction is taking place in the stump, the whole of the periosteum having been left in very fair condition. These operations were done under antiseptic precautions.

This amputation, necessitated by the force of circumstances, suggests this method as a safe and practical one in all cases requiring disarticulation at the hip, as it permits the application of Esmarch's bandage, and is a bloodless operation.

The microscopic examination of the medullary matter, by Dr. J. B. Marvin, showed the tubercle bacillus in small numbers.

Two and one half years have passed since the amputation,and bone has been reproduced down to the end of the periosteum, which was left, and there is motion at the joint which is controlled by the muscles, just as if the original bone had never been removed. He has had fitted to this stump an artificial

limb and I have seen him walk on it in the rough with no more difficulty than is ordinarily exhibited by a patient when first trying to use an artificial leg.

CASE V.—Is one of relapsed club-foot in a boy 6 years, treated imperfectly since four months old. This was an extreme case of double talipes equino-varus at first.

Achillotomy had been done three times prior to the operation to be described below. First at four months, again at 2½ years and at 4½ years, each time some intercurrent trouble prevented the proper carrying out of this after-treatment, the result when he presented himself again for treatment at 6 years of age, being only a partial correction of the deformity.

The outline of the soles of the feet and the lateral tracings give an idea of the present deformity. The feet were very rigid and unyielding.

While attending the recent meeting of the Am. Orthopedic Association, at Washington, I heard my friend Dr. J. V. Gibney report on the use of an instrument known as the Thomas wrench, for forcible displacement of the feet in this class of cases, and when this boy came to me three weeks since, I had an ordinary monkey-wrench modified into a T.T. or "Thomas' Twister." Oct. 7, I divided the tendo Achilles and tibialis posticus on the right along with the plantar fascia on both, and after failing to get much effect in the way of replacement with my hands, I used the wrench and forced the feet into calcaneo-valgus, fixing them in this position in plaster of Paris. In ten days he was able to walk about the ward on his heels or by flexing the knees slightly, on the soles of his feet.

The first dressing was removed on the 5th day on account of the swelling of the toe. The second was removed on the 19th day, and the second tracings obtained, which shows the great improvement already produced.

It is proposed to continue the plaster splints until there is no longer any danger of relapse of the deformity. This is my first case where this treatment has been tried, but I am well pleased with it, and believe it is the thing in these old relapsed cases and in the older cases where nothing has been attempted in the way of treatment.

If complete restoration cannot be accomplished at one attempt, repeat the operation at the end of two weeks. Of course, profound anesthesia is necessary in this operation, and very careful watching of the splints to prevent sloughs occurring. A few doses of opium is all that is needed for relief of the pain directly after the procedure.

CASE VI is one of gunshot wound of abdomen, in a negro boy of 17, who was brought to Louisville City Hospital at 12:30 A. M., Jan. 15th, '88. He had received a wound from a 32 calibre pistol in the left side of abdomen, about half way between the last rib and crest of the ileum, and 3½ inches to the left of the umbilicus. The patient presented marked evidences of shock, when I saw him about one hour after he received the wound, and the abdomen was tense and tender, no evidence of tympanites. The range of the ball was downward, inward, and backward, as indicated by the finger used as a probe, the tip of the finger entered the post-peritoneal space and came in contact with the lower end of the left kidney. The catheter was used before enlarging the wound for further exploration, and three or four ounces of normal urine was obtained. An incision four inches long was then made in an oblique direction having for its center the bullet-wound; considerable blood in clots and some little fecal matter being found in the cavity. Six wounds of the ileum within a space of eight inches came into view at once. These proved to be all. After closing them with continued sutures of fine cat-gut, the cavity was cleansed by long continued irrigation with a $^1/_{100}$ warm carbolized solution and closed by two sets of gut-sutures, a large rubber tube being left in the upper and posterior angle.

The patient's temperature was the same on being put to bed as it had been just before going under chloroform 97° in the axilla. He soon rallied, however, his temperature being 99½ six hours after the operation. Morphia was given hypodermatically, no special

amount or time being observed, nothing whatever being given by the mouth for first twenty-four hours, except whiskey ℥ss and tr. digitalis gtt xv., every 3 hours. He began to fail rapidly on the morning of the 16th, 36 hours after being shot and at noon was thought to be dying. Temp. 104°. Pulse 164. An ante mortem statement was taken at this hour and at 2 P. M. he received ʒi tr. digitalis by the mouth with ℥ss whiskey. Improvement was evident in a short time and continued until at one time we thought he was going to get well. He took liquid beef peptonoids with whiskey at intervals of one hour with enough morphia to keep him slightly under its influence.

No change for the worse took place till late on the 4th day, when a spasmodic hiccough set in, and he died at 2 A. M., just 96 hours after the operation. I failed to say that there was bloody urine passed for 48 hours, gradually disappearing. There was very little tympanites or other evidences of peritonitis. One thing noticed in the case was that the respirations never were above 24 per minute. The post mortem made eight hours after death, showed all the intestinal wounds to be firmly united with little local inflammation. What was present was around the tube.

There was some peritonitis in left iliac fossa remote from the wound. The post-peritoneal space was filled with grumous blood and urine, a wound of the ureter being present one inch below the kidney—the escape of urine explaining the peritonitis in the pelvis. The ball was found with some pieces of clothing between the great vessels and spinal column a little to the right. I believe this patient would have recovered, had not the damage found in the postperitoneal space been present.

If these balls would stop in the cavity or do no mischief after leaving it these cases would not be difficult to deal with.

I wish to acknowledge my great indebtedness to Dr. J. T. Blackburn, of Louisville, then one of the house staff for his untiring attention to and watchfulness of this patient.

CASE VII.—M. W., colored woman, æt. 35. Admitted into the female ward of the Louisville City Hospital, April 26, '88. Diagnosis. Subserous fibroids of the uterus. Having been constantly bleeding for three months, with excessive hemorrhages at each monthly period for over a year.

The woman was pretty well ensanguinated, and marked tympanites was present, the result of mechanical obstruction from the large fibroid.

This symptom would disappear temporarily after a large dose of oil—when the tumor could be easily mapped out. It was decided to make an exploratory laparotomy with the idea of anticipating the menopause by removal of the ovaries, if it were possible to get them away. On May 4, '88 after the patient had been prepared, the abdomen was opened by an incision of 3½ or 4 inches, midway between umbilicus and pubes.

The uterus and ovaries were fouud matted togather as one fibroid mass. and it was found impossible to remove or even to locate the the former organs. The abdominal cavity was cleansed and the wound closed with two sets of gut-sutures, one for the peritoneum and the other for the wall.

There was no shock or other bad symptom until the third day when the tympanites began to return and very rapidly reached a degree of distention which prevented anything remaining in the stomach, and interfered very much with respiration as well.

Large doses of Rochelle salts were given without effect, followed by five drops of croton oil in as many doses one hour apart with no response after waiting two days.

To relieve the patient's suffering and if possible to save the bursting of the wound, I tapped the transverse colon with a medium sized aspirator needle, allowing great quantities of gas to escape. The abdomen soon being reduced to its natural size except for the presence of the tumor. Within a few hours four or five large evacuations from the bowels took place, and the patient went on to rapid convalescence, sitting up by the fourteenth day walking about the ward at the end

of three weeks. The peculiar feature in this history is the fact that there has been no more bleeding, and the woman has returned to her duties as a cook and at this date her employer tells me she is perfectly well, and would not be recognized as the same woman. Ergot was administered for a short time in ʒj doses after she recovered from the operation.

The result is gratifying, as I expected no benefit at all from the procedure after I failed to remove the ovaries. What the modus operandi was which brought about relief I will leave the society to decide.

Case VIII.—June 25, 1887. Miss C., æt. 22, referred to me by a professional friend to have a stone removed from the bladder. After repeated searching I was unable to discover the calculus. The symptoms about the bladder were very marked, particularly the frequency of micturition and the quantity of pus in the urine. The patient, however, notwithstanding the fact that she had to relieve the bladder every hour or so, night and day, was in good general health. On June 20, I made a digital exploration of the bladder under ether, and finding no stone, referred the case back to my medical friend. For three or four weeks she was treated by him for a fever, which soon became hectic in its character. On July 20, 1888, she came under my observation again in consultation with Dr. Leachman. I was shocked to observe the change which had taken place in her appearance. She was very much emaciated, almost unable to walk, compelled to pass her water every fifteen minutes, this to all appearance being more than half pus. Temperature of 104°, pulse 140 to 150, and I feared she would not live any time. She was advised to enter St. Joseph's Infirmary, where I introduced a retentive catheter in the hope of giving her some rest from the constant irritation of the bladder, and consequent restlessness.

About this time she complained of some discomfort and a slight pain in the right loin. Upon examination a tumor, fluctuating, was found in the region of the kidney on this side, the palpation of which filled the bladder with pure pus, requiring immediate relief, though she had emptied it a moment before. I aspirated this swelliug through the abdominal wall, and drew off nearly a quart of very offensive pus and a great quantity of gas. The urine was free from pus for nearly two days after this tapping. The diagnosis of pyonephrosis was easily made, and I advised as a forlorn hope an attempt at nephrectomy, thinking that the great exhaustion of the patient would not allow the further drain incident to a single nephrotomy. On Aug. 10, 1887, this operation was undertaken by the posterior method, this being chosen rather than the abdominal for the reason that I feared my inability te get the kidney away, and if I failed nephrotomy could be done, giving the patient this chance.

The kidney was easily reached and as easily freed from its surroundings, all but about one-third of its surface, which seemed to be attached to the ascending colon. The anesthetic, this time chloroform, acted so badly, or, rather, the patient was so much reduced, that I soon gave up the idea of removing the kidney, and opened the abscess instead, which was quite large, at least a pint of pus escaping beside a quantity of debris that was removed with the curette; thorough irrigation and closure of the wound over a large drainage tube completed the operation. Careful asepsis was observed throughout the case. The patient's condition was bad when removed to the bed, but, after a long siege, she finally recovered her usual health, the vesical irritation improved slowly but the bladder still requires relief every two hours. The sinus has never closed and discharges a little urine and pus, requiring an absorbent pad to be worn constantly.

This has been an instructive case to me, as illustrating the importance of knowing the condition of the kidneys before giving ether, and I report it to learn from the discussion what is the best way to treat the fistula, and if possible to increase the capacity of the bladder.

Case IX, Mrs. S., æt. 52, is an interesting one to me. One year and a half before con-

sulting me she had fallen from a doorstep, striking her right knee against the jamb, since which time she had suffered greatly with all of the well-known symptoms accompanying a joint mouse. Upon examination, the floating body could be easily felt, playing from one side to the other of the quadriceps tendon, and was very large, the largest I have ever seen. I advised her to have the body removed by a direct incision into the joint. On Oct, 21, 1888, under cocaine, I cut down on the body and removed it, along with two or three tags which were adherent about its pedicle. The pedicle was quite long and allowed the body to get far down between the femur and tibia. I used a pair of bullet forceps to twist off the end from its attachment. The wound of one and one-half inches closed well, gut sutures continued after washing out the joint with sublimate solution 1:2000, followed by weak carbolized solution. An antiseptic dressing with splint finished the operation. I saw her Tuesday and redressed the wound. The wound was healed completely and no joint trouble whatever, was present. In fact the knee looked much smaller, as I failed to say that 3 or 4 ounces of fluid escaped when the joint was opened. The patient will very probably be entirely relieved of the complete crippling with out further complication. I was astonished that there was no sign of shock, though I introduced my finger and sought for the body, guiding by it the forceps.

A Case of Hydrophobia.

A case of hydrophobia is reported in the *Brit. Med. Jour.* in which the disease developed one year and four months after the patient was bitten by a dog.

Post-mortem showed subcuticular mottling of the entire body. The larynx and trachea were intensely congested, and the mucous membrane of both was covered with thick, viscid, dark-colored mucus. There was deep congestion of the lungs and membranes of the brain. Aside from congestion of various other organs of the body, nothing abnormal was found.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, NOVEMBER 17, 1888.

The Effect of City-Life on Health and Physical Development.

In writing upon this subject Dr. G. B. Barron (*Lon. Lan.*) asserts that the vital-force of the town-dweller is inferior to the vital-force of the countryman, and that it may be conceded as an established fact that the townsman is, on the whole, cosstitutionally dwarfed in tone, and his life, man for man, shorter, weaker, and more uncertain than the contryman's.

He says: "I hold the opinion that the deterioration is more in physique, as implied in the loss of physical or muscular power of the body, the attenuation of muscular fibre, the loss of integrity of cell structure, and consequent liability to the invasion of disease, rather than in actual stature of inch measurement. The true causes of this deterioration are neither very obscure nor far to seek. They are bad air and bad habits. To these may be added a prolific factor operating largely to produce degeneration of race, and that is, frequent intermarriage, often necessitated by religious affinities."

This may be true in regard to the poorer classes, except as to the part that intermarriage plays, which may be an important factor in London, but in this country it is not worth considering. It is pretty generally conceded that among the better classes in our cities, over-taxing of the mental powers to the neglect of physical excercise, is the chief cause of lowered vital-force.

A striking example of this occurred but few

years ago—seven finely developed young men both mentally and physically, while attending the University of Virginia, applied themselves to their studies, from fourteen to sixteen hours a day. They received their degrees, and within sixteen months five of the seven died from the effects of acute diseases.

Other factors in the production of ill-health and consequently lowered-vitality, among the better classes, are irregular hours for eating and sleeping. The city physician does well to take these into consideration, in treating his patients.

The late Dr. Fothergill said: "The chief diet selected by the town-dweller begets a condition known to doctors as the uric acid diathesis, with its many morbid consequences. Pulmonary phthisis and Bright's disease seem Dame Nature's means of weeding out degenerating town-dwellers."

Taking food at any and all hours, starving the stomach at one time and overloading it at another, is a greater factor than the quality of food, in the production of dyspepsia.

Dr. Barron says the question, "Is the town-dweller degenerating in stature, or is he not?" has not yet been satisfactorily answered. The report of the anthropometric committee says: "It is generally believed that the population in the manufacturing towns in the north of England is rapidly degenerating, but a comparison of the measurements of stature and weight given in the Report of the Factory Commission, and the Report of the Local Government Board of the employment of children and young persons in factories, 1813 shows that this is not the case."

Foreign Bodies in the Ear.

This is a subject of very universal interest to the general practitioner and even the specialist is often placed "at his wit's end" to devise means to remove foreign bodies from the auditory canal. Singularly enough the majority of practitioners resort to the use of probes and forceps before using the simplest and by far the most effective method at our command for relieving these cases—syringing the ear with warm water. If a case be seen before swelling of the lining of the canal has taken place, it is the rarest thing that the foreign substance cannot be readily brought away by the use of a stout syringe which throws a small stream. The stream of water should be directed against the edge of the foreign substance, or if there is room between the substance and the wall of the canal the stream should be directed through the opening. Only warm water should be used. Of course it is possible to use force enough with a stream of water from a large syringe to excite acute inflammation, but the danger is infinitely less than "poking at a foreign body" with probes and forceps. However, now and then a case is met with, in which only skilled manipulation of instuments will succeed in clearing the canal of the offending substance. In using the syringe, if the stream of water is not properly directed, it will not be effective.

A unique case occurred in the practice of Dr. Wm. Caston, of Corsicana, Tex., a child three years of age, the daughter of an intelligent general practitioner, had a discharge from the right ear for two months. The father of the child had treated the ear by syringing it out with warm water and blowing powdered boracic acid into the canal.

When the little patient was brought under Dr. Caston's care, he cleansed the auditory canal and on examination found a hole in the drum membrane in size, about one-third of the surface of the membrane. The syringe was again used in order to cleanse the middle ear, and a small lump was brought away which was found to be the shell of a house-fly covered with pus. The fact that the soft parts of the fly had been dissolved, indicated that it had remained in the middle ear cavity for some length of time. Dr. Caston dried the ear, blew in equal parts of iodol and boracic acid, and the discharge ceased from that day. The opening in the drum membrane closed and the hearing was soon restored to normal.

In eczema of the auditory canal flies are prone to find their way to the seat of the dis-

charge. I have reported, in the REVIEW, cases in which large numbers of maggots were found in the canal, but I have not heard of another case in which a fly entered the tympanic cavity.

TREPHINING FOR TRAUMATIC EPILEPSY.

Mr. Southey exhibited a patient to the Manchester Medical Society, whose skull had been trephined twelve months previously. At the time the patient had suffered from fits of epilepsy for nine months. The trephining was done at the site of an old scar, a piece of thickened bone being removed. Since the operation the patient has exhibited no signs of epilepsy.

DR. HALL saw a case, (*Luncet*) that was admitted to the Westminster Hospital, almost collapsed and vomiting, with a history of acute obstruction of the bowel. When the abdomen was opened no obstruction was found, but it was supposed that a kink in the intestine was undone. The abdominal wound was closed with sutures introduced after a new method, and at the end of thirty-six hours they gave way, permitting many coils of the intestine to protrude from the cavity. These were returned, the wound again closed and the patient made a good recovery. The report of this case is interesting, but it would have been much more instructive had Dr. Hall described minutely the "new method" used in closing the abdominal wound. What a blessing to humanity it would be if surgeons would take as much pains in reporting their failures as they do in reporting their successful cases.

DR. GREGORY ACKERMANN, of Wheeling, Va., reports a case in the *Med. News*, in which he performed tracheotomy on a child, two years of age, and removed a watermelon-seed from the right bronchial tube. The point of interest in the report is that an effort to dislodge the seed, by suspending the child by its feet, shaking it, and causing expulsive coughing by irritating the trachea with a feather, utterly failed (as it usually does in such cases) and the seed was easily removed with a suitable pair of forceps. The child recovered.

DR. JOSEPH O'DWYER the originator of Intubation of the Larynx has been appointed Professor of Diseases of Children in the New York Post-Graduate Medical School and Hospital.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

Yesterday's telegrams announce a meeting of the trustees of the *Amer. Med. Asso.Jour.* at which the resignation of the venerable N. S. Davis as editor of the *Jour.* was recieved and accepted and Surg. Gen. Jno. B. Hamilton was elected his successor. Dr. Hamilton brings to his task ability of a high order: he is ambitious, a splendid organizer, has superb executive ability, and the field is one ripe for the harvest, ready for the fruition of his best ability and highest ambition. Young energetic, with splendid physique, a clear head brisk and brainy, an earnest heart he has the opportunity to become the Earnest Hart of the American profession, the architect of a journal which will rival the *Brit. Med. Jour.* the best medical journal in the world to-day. Dr. Hamilton, the American medical profession and medical journalism are to be congratulated.

Dr. Hamilton has won many spurs, there are more in sight, will he win them?

* * *

It is questionable whether the removal of the duty from quinine has not been harmful rather than a public good, in that now quinine pills can be purchased on every corner for a song. In fact, they are so cheap that the masses are buying them by the hundreds, carrying them around in their pockets, and taking and giving them ad libitum. The people having been educated up to the belief that the drug is a cure-all, and it having been placed on the market like sugar and coffee or

peanuts, one can hardly blame them for their insane propensity for taking it in season and out of season, early and often, like Paddy votes or takes his dram. Has not the time arrived for the profession to raise its voice against this improper use and abuse of a very proper remedy?

* * *

I doubt whether doctors are credited with unselfishness when they inveigh against the use of patent medicines or the general self-drugging on the part of the public, as the latter are apt to think that the profession object on the ground that it is robbed of a fee by such procedures. But the fact is that the improper and unskilful use of nostrums and drugs in the end increases the work of the doctors, and besides, the continued parading before the eyes of the susceptible ones by the nostrum venders of the numerous ills that poor humanity may fall a victim to, is a very potent factor in the causation of cases that fall into the hands of the strictly ethical doctors.There can be no doubt that all the quacks and advertisers in Christendom are to the people a curse and to the medical profession a Godsend in the matter of fattening its purse.

* * *

In an exchange appears a statement that at the recent meeting of the British Association for the Advancement of Science the professor of pathology at Cambridge read a paper in which he claimed that "the slight pressure involved in wearing stays has a beneficial effect, and reasonable lacing increases mental and physical activity." Several medical gentlemen opposed this view, but a lady member defended it.

No doubt the professor and the lady member were right. Excessive lacing is certainly objectionable from the stand-point of health, beauty, comfort and common sense, but the corset not too tight, but just tight enough, serves as a support to the female bust, an admirable chest protector, an aider and abettor of an erect and graceful carriage. No one can deny that a slight pressure about the waist of an attractive maiden made by a properly adjusted corset or even the arm of a cultured and refined male attendant can have other than a beneficial effect in increasing mental and physical activity.

* * *

Lavage—the washing out of the stomach by liberal quantities of water plain, or medicated, by means of the esophageal tube on the principle of the syphon, especially indicated in oases of chronic catarrh of the stomach with or without dilatation, was first introduced to the profession by Kussmaul in 1867. It is a procedure of great value and may be compared to the catheterization and washing out of an inflamed and distended bladder. It should be performed carefully and not too frequently—once in twenty-four hours, with water at a temperature ranging from 98° to 100° F., at a time when the stomach is free from food, preferably early in the morning.

There are many milder catarrhal disturbances of the stomach which may be relieved by a simpler plan of washing out the stomach, viz., the drinking of free quantities of hot water and the prompt expulsion of the same, or if it be retained it will soon pass out through the pyloric orifice carrying the accumulated secretion of the organs. Almost every case of dyspepsia will be materially relieved by the regular drinking of free quantities of hot water a half hour before each meal. An acute indigestion will often be removed as by magic by drinking freely of the hot water.

* * *

The Indiana *Med. Jour.* and the Indianapolis *Sun* have been scoring each other in recent issues of their respective publications.

The *casus-belli* was the Sun's report of a wonderful surgical operation, performed by a local surgeon, said report being severely criticised by the *Journal*, the *Sun* retaliating by calling the *Journal* "a cheap-dollar-a-year-yellow-covered-sheets," etc., "a dispenser of cheap wisdom," etc. The *Journal* replies by saying that the *Sun* is like the philosopher's monkey, in that the higher it climbs the more it exposes the terminal portion of its alimentary canal, etc.

Brother Ferguson, of the *Journal*, lets out a considerable amount of "good natured buncombe," which is more or less effective, but which is not sufficient to remove the thought from one's mind that the man who opens fire upon an enemy with a gun that shoots but once a month or twelve times a year as against a battery that may shoot with every rising of the sun, or three hundred and sixty-five times a year, the same, like the boy who bravely tore down the wasps' nest, is possessed of more nerve than discretion, and, like the urchin, may withdraw from the conflict knowing more, but possessed of much less beauty.

The medical journal that engages in a wordy war with a representative of the secular press, like the courageous but incautious bull which boldly holds his ground on the railway track against the oncoming locomotive is daring but not discrete.

* * *

The Cincinnati Polyclinic was incorporated October 24, and was organized October 31. Dr. Charles A. L. Reed was elected dean, Dr. Longstreet Taylor, secretary, Dr. R. B. Hale, treasurer. The professors are as follows: General Medicine, Drs. And. C. Kemper and E. W. Mitchell; Pediatrics, Dr. H. W. Rover; Diseases of Women, Drs. Charles A. L. Reed, Edwin Richetts and R. B. Hale; Ophthalmology, Dr. Robert Sattler; Laryngology and Otology, Drs. A. B. Thrasher and J. H. Boylan; Diseases of the Skin, Drs. A. Ravogli and M. Ricketts; Surgery, Drs. Longsteet Taylor and Wallace Neff. The faculty is made up of prominent specialists in their respective departments, nearly all of whom hold important positions in the various medical colleges and hospitals of the city. None but post-graduate students will be received. The present enterprise is the outgrowth of a voluntary clinic that has been in operation for some time. This with the hospital connections of the faculty puts the school in good condition for a start.

Post-graduate schools are filling a long-felt want in the profession, and if seventy-five per cent of the diploma mills of the country would crystallize themselves into schools of instruction for the men already in the profession and cease grinding their grist of superfluous fledglings, the profession and the public would be the gainer.

* * *

An exchange refers to the fact that the 2476 physicians of New York city are said to agree that "the profession is over-crowded," and the same page contains the statement that in Tomsk, Siberia, there are only 22 doctors, an average in some districts of only one physician to 100,000 inhabitants. What a blissful region for an unoccupied medical man to emigrate to! Only imagine an idle doctor suddenly possessed of a clientile of 100,000 people!

By the way, wouldn't it be a good plan for one-half of the over-crowded profession of New York city to chip in and ship the other half to the elysian fields of Siberia?

* * *

In our typhoid fever patients and other long continued illnesses, it is probable that coffee as a saver of nerve force is not fully appreciated. We are all aware of the fact that the habits of each individual prior to his sickness should be cousidered. If his whiskey be too suddenly withdrawn when he has been a regular daily drinker, we know the dangers; but I fear we overlook the importance of furnishing the coffee and tobacco habitue who has fallen a victim to disease with his rations of his favorite beverage or weed.

An attempt has been made to establish the point that coffee drinkers are not liable to typhoid fever, but I have seen no reference to the possible advantage of furnishing such patients with a liberal supply of the sustaining drink as a supporter against the destructive effects of the disease.

* * *

I question whether mankind in general is sufficiently impressed with the importance of strict cleanliness of the genital organs. Doctors should educate their patients to an appreciation of this matter, not only for esthetic reasons, but for healthful ones as well.

The morning toilet should not be considered complete until a free evacuation of the bowels is secured; followed by a bathing of the anus and the entire genitalia.

Aside from the advantages in a cleanly and healthy direction the moral and social well being of the domestic circle would be subserved did our married woman religiously cleanse her vagina by the use of free quantities of water, to which might well be added a slight modicun of common salt, borax or alum.

We know that the tooth brnsh and cleanliness of the mouth prevents diseased gums and other disturbances of the cavity; how many cases of vaginitis, erosions of the os, balanitis and even urethritis may be chargeable to filthy ill-kept vaginas may well be imagined.

Lawson Tait has said some things worthy of endorsement, among which is the following: "I am well satisfied that venereal diseases might be stamped out if more scrupulous attention were given to the toilet of the genitals."

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Oct. 27, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. Hulbert read a paper, (see page 563,) on

Vaginal Hysterectomy.

At no time during the progress of the case was there any evidence of septic or peritoneal inflammation. The temperature seemed to hover about 100 degrees and to be dependent upon the vesical irritability. On the third day her bowels being constipated, it required active cathartics to move them, and the result of the use of the sulphate of magnesia (I first tried the citrate of magnesia) was a very severe attack of rectal irritation; so much so that there were bloody stools and tenesmus, and during the time of this disability the temperature rose on two occasions to 102°; but even during this complication there was no evidence of inflammation of the peritoneum. I dressed the wound with an iodoform tampon, gauze placing a sufficient quantity to support the base of the bladder and when this was removed on the ninth day there was no odor of decomposition; the tampon did not smell from the urine as one would suppose with the soaked condition present. During her recovery I insisted upon her drinking large quantities of water. Convalescence was fully established by the 12th day after the operation, and if it had not been for the fistula she could have gone home without any difficulty, because the wound had cicatrized by the 18th day after the operation. Of course the patient was very anxious to be relieved from the result of the accident, the vesical fistula, and I told her that in order to have any assuracce of success from that operation it would require considerable time to give the parts time fully to cicatrize. I advised her to go home and wait three or four months and then come back and have the operation performed. But as her husband was anxious to take all chances and have the operation performed at once, I finally agreed to make the operation for the fistula. That operation was done thirteen days ago.

The original opening into the bladder was about large enough to put the index finger into. When I examined it after she was convalescent, it was the size of a silver dollar, showing a good deal of sloughing of the tissue there, and at the time I operated it had contracted some.

The result of the operation is that the fistulous opening has been reduced to an opening about the size of the end of my little finger. This fistula is right in the cicatrix in the upper part of the vagina. In my opinion it did not unite there not because there was not a broad enough line of denudation, that being a half an inch on each side, and not because it was not brought together, but because of the weakness of the tissues.

If I had it to do over again, instead of operating in that way I should bring the vaginal wall and peritoneal surface together

at site of fistula (indicating) and button-hole through the vaginal membranes and by a continuous suture unite the mucous membrane of the vagina and mucous membrane of the bladder, endeavoring to close the tract through the cellular tissue about the vagina and making a closed wound of the upper part of it. I do not think I should attempt to close the fistula in the bladder unless the tissue was good.

I don't think the patient suffered at all from shock. Immediately after the operation her pulse was slightly over 100: that evening it had fallen to 90; and at no time except when the bowel trouble occurred, did the pulse go over 100; then it reached 102. We used antipyrin and that may have controlled it.

I told the patient that it was simply useless to try to do anything further inside of four or five months.

The wound healed kindly, not only after the operation for the fistula, but after the first operation, and is evidently cicatrizing nicely and there is no evidence of a return of the disease at this stage. A microscopical examination made by Dr. Rohlfing determined the fact that this was a carcinoma, and at the time the uterus was removed there was discovered a gland on the anterior surface about the position of the internal os; this gland was examined and found to be infiltrated; there was no infiltration of the cellular tissues outside the growth. The only infiltration we found, was in this gland.

Dr. Henry H. Mudd.—Was the bladder filled with urine at the time the opening was made?

Dr. Htlbert.—No, sir.

Dr. Mudd.—You cut close to the neck of the uterus?

Dr. Hulbert.—I cut as free away from it as I dared; it was pretty close to the bladder.

Dr. Mudd.—How far from the neck in the tissue did you cut.

Dr. Hulbert.—Probably half an inch.

Dr. Mudd.—A question comes to my mind in connection with the closing of the fistulous openings with reference to the anatomical relations. The vaginal wall and the bladder wall are very closely connected and the retraction—the pulling down of the one would also pull down the other toward the outlet of the vagina. As I understood the doctor he spoke of the anterior wall retracting and leaving the opening above that.

Dr. Hulbert.—Yes, sir; above the line of incision.

Dr. Mudd.—And there was a space of an inch and a half or two iuches between that and the peritoneal suface?

Dr. Hulbert.—Yes, sir; we were not able to close the cellular tissue anteriorly.

Dr. Mudd.—I can hardly understand how that should occur with an empty bladder and a section so close, as the doctor described this, to the lip of the uterus; the cut being through the vaginal wall, or through the anterior wall of the vagina at this point, for the bladder wall is closely connected with the vaginal wall; in fact, it would be difficult to dissect off that portion and free the bladder from the vaginal wall; I do not understand why the vaginal wall should retract and leave such an extensive opening as above; yet such seems to have been the case here.

As the anterior wall of the vagina is more frequently involved, according to my experience, than the posterior, as it would naturally be from the anatomical relations, it limits very materially the advisability of the operation. The doctor describes the operation as if it was very easily performed. I expect in most of these cases where the uterus is movable it is, and yet it seems to me there is often difficulty in getting the sutures into the lower portion of the lateral ligament, which is the first suture to control the hemorrhage.

Dr. Johnston.—How often have you extirpated the entire womb, and what has been the result, in carcinoma or epithelioma?

Dr. Mudd.—I am not in the habit of extirpating it for carcinoma and have no statistics bearing on it.

Dr. Johnston.—I asked the question whether the operation of extirpation of the uterus has not been abandoned by the profes-

sion in Europe. I can not put my hand on statistics that have recently been reported, but my understanding is that the profession has now about abandoned the operation; that the results have been so unfortunate that they do not justify the operation.

Virchow in his Cellular Pathology lays down the broad doctrine that cancer is a local disease and commences from a local trouble and afterwards becomes constitutional. Carmichael, John Sims and others clearly demonstrate that cancer is dependent upon some constitutional taint, whereby the local disease is developed. I believe that the profession will some day come to the conclusion that cancer depends upon a peculiar vitiated tendency, you may call it a diathesis if you will, which develops the local disease. Paget says that although we may operate on these cases they will return, and he reports cases in which this has happened, in one case it returned after 21 years.

Dr. Bond.—Dr. Johnston seems to be under a misapprehension as to the status of this operation in Europe. Today no operation is more fashionable than extirpation of the uterus, and Martin and others have had large experience in performing the operation, and report the most favorable and satisfactory results. I must confess that I have some doubt as to the results that they claim, as I am not disposed to think that the number of cases observed is sufficiently large to justify the encouraging conclusion that one would seem to be permitted to draw from their observations. I had supposed, when reading of the favorable results, that they were due to the fact that the entire cancerous mass had been embraced in the operation; that by the removal of the entire uterus no cancer cells had been left, and that possibly the favorable result was to be referred to that fact, but in an article written by Dr. Lusk, of New York, recently in which statistics given by Hofmeier were furnished, my conclusions were modified. It seems from these statistics that the conclusion which I arrived at is not tenable. The statistics as given by Hofmeier are as follows:

Schroeder, of Berlin, from Oct. 1, 1878, to Oct. 1, 1886, had 136 partial operations with 10 deaths, mortality 7.4 per cent; there were 74 total extirpations with 12 deaths, mortality 16.2 per cent including unavailable cases; there were 129 operations available for statistics.

What I mean by unavailable is the patients passed from observation. Of the 126 cases, 69 or 53 per cent were known to be healthy at the end of one year, aud 63.6 per cent of the complete removals remained well; at the end of the second year, 46 per cent of the partials and 24.1 per cent of the complete cases were well; at the end of the third year 42 per cent of the partial and 26 per cent of the complete extirpation cases were well; at the end of the fourth year 41.3 per cent of the partial were in good health while not one of the cases of total extirpation was alive.

Such statistics, as a matter of course, destroy the theory that I had formed that total extirpation carried with it the entire removal of the cancer cells, for here the patients from whom the uterus had been partially extirpated are alive—41 per cent at the expiration of four years and not a single one of those from whom the entire uterus was removed is alive.

Dr. Walter Coles.—I would like to ask the doctor if those cases in which the uterus was partially removed, that is, in which a portion of the uterus was removed, were not cases in which the disease was more recent.

Dr. Bond.—Yes, that would be the natu ral inference.

Dr. Coles.—They would be the milder class of cases, in which perhaps the amputation of the cervix wonld be considered as sufficient. Of course the inference to be drawn from these statistics is that we should be conservative in our method; where the disease has not lasted any great length of time and where we feel certain that we circumscribe and embrace the whole of the diseased part in a partial operation, that it would be safest. Then the other element is as to the time which the disease has existed. There is no doubt that if you are going to resort to a radical operation, an operation for the cure

of a malignant disease the sooner it is done the better; the longer the disease lasts and the more thoroughly the patient's health is undermined, the less hope we have of a long period of immunity after the operation.

I have mentioned a case, before in this society, of a lady who had her breast amputated, although she was pregnant at the time. It occurred many years ago in the practice of Dr. Nathan R. Smith, of Baltimore. I saw the breasts afterwards, and it had all the appearance of a carcinoma of the breasts—the retracted nipple. There was no return of the disease, but after 26 years the patient was taken down with cancer of the uterus and simultaneously with cancer of the liver.

The operation in that case was performed early when the patient was a comparatively young woman and in vigorous health. That shows that in many instances when the disease is removed entirely that we do prolong life. Paget mentions a number of cases where life has been prolonged from 8 to 10 or 16 years,and in one case 21 years,and where you have a woman who has a family of small children, if you can spare her for a few years while they are growing up, you can accomplish a great deal. We know that there is no disease which causes such a constant strain upon the patient as these malignant diseases of the womb. If she has not reached the menopause, she has almost constant hemorrhage, and even if she has passed the menopause we have very rapid drainage and under such circumstances if we come to the conclusion that it is wrong to perform an operation, we know the woman is bound to die within a very short period, so that it seems to me if we have a chance to remove the diseased part that the operation is really a conservative one, because we check the disease for the time being, even granting that it will return, and I have had several instances in which women have enjoyed good health for some little time after the operation.

I have never had an opportunity of observing a case of extirpation of the uterus for any great while. I have seen many cases which were curetted where the woman has recovered her health apparently entirely. I have one case in my mind where I curetted for a cauliflower excrescence in which the woman recovered and had most excellent health.

Dr. G. Hurt.—I do not understand that in the statistics given by the President, the patients died within four years simply from the fact that the uterus was extirpated, but they died because the extirpation was performed for a certain malignant disease, and that the disease had probably advanced too far to be arrested by the extirpation of the uterus. I do not think we are obliged to conclude that the operation of extirpation of the uterus is necessarily fatal and ought not to be performed in any case.

Dr. Prewitt.—It is very evident that the statistics presented by the President, might be very misleading. It is preposterous to say that an operation for cancer of the uterus in which a partial removal was affected would prolong the life of the patient longer than a complete extirpation of the womb, if the patient recovered from the operation. The greater must include the less, so far as the diseased tissue is concerned; and in all cases of malignant disease the very first consideration is to get rid of every particle of diseased tissue.

We all know that malignant disease is propagated by infiltration of tissue and the wandering of cells from the point of growth. I don't think the case which Dr. Coles has cited contravenes that position. We can not believe that cancer cells in a case of that kind will lie dormant in the system for 20 years, that is not plausible, in fact, these vicious cells once having obtained a footing, are not quiescent, they are always aggressive, and it is not at all probable that the recurrence after 21 years had any relation to the local disease which existed at first. unless it were the patient's system favored the development of the vicious cells at the subsequent time just as it did in the first instance.

But aside from that, I think the cases reported by the President—the statistics quoted, simply mean that the partial opera-

tions were done at a very early period, and that possibly by the operations the patient got rid of the disease; just as we would in cancer of the lip, while the graver cases o those in which the entire uterus was removed, the disease had made much more progress. If all the cases which were operated on and had the entire uterus removed, the probabilities a e the precentage of patients who were alive at the end of the four years would have been greater still.

Of course, as Dr. Coles says, the earlier the operation is performed the better, and if there is anything that I would take exception to, it is the tendency to the performance of a partial operation, the elimination of a portion of the diseased organ. Every one must know the difficulty of getting rid of a local growth in the uterus. It must be supplemented by the application of caustics and that is a very uncertain method. You do not know how much tissue you are going to destroy, it is far more uncertain than the knife, when you can use the knife effectively, we run the risk of going a good deal farther than we intend. I believe the extirpation of the entire uterus for this trouble is much better, and I believe that if the disease is recognized early and the entire uterus removed, the results will be better.

Dr. Bremer.—I wish to say a few words on this subject. There are a great many cases of cancer that are certainly incurable from the beginning. For instance, cancers that arise on the floor of the mouth, are as a rule incurable, because the lymphatic system is so rich in that vicinity that the infiltration is apt to be very extensive. An equally dangerous part is the uterus; that is an organ which is rich in lymphatics: hence the danger of cancer which arises there. But take for instance the head, we can not clearly state the reason for it, but the infiltration does not take place so rapidly. There are a good many persons walking about who have epitheliomata of the face or head which have existed for a great many years. If I had an epithelioma arising in the head, I would certainly have it extirpated as soon as possible; that is to say, as soon as the nature of the trouble had been made out. Statistics have proven that the earlier we operate on cancer, the better is the success. Of course there are some eancers that will return in spite of the earliest operation. A great many tumors have been removed which by close inspection were pronounced to be cancers: the patients got well and the tumors were not cancer. Adenomata have frequently been mistaken for cancer. In order to make the microscopical examination of the greatest value in these cases, a section should be made, not only of the caucerous growth itself, but of a portion of the healthy tissue. A section should be made into the tumor and also into the healthy tissue. By doing this it is much easier to determine what is the character of the growth, but most frequently the section is made wholly in the abnormal growth.

Dr. Riesmeyer.—Regarding the indications for an operation for cancer of the womb I will say that if the cancer grows from the vaginal mucous membrane of the cervix—that is that part of the neck of the womb in which squamous epithelium is found, it is comparatively innocuous and we are generally successful by amputating the vaginal portion of the cervix or by simply curetting it. I have seen several of such cases that got well after thorough curetting, and Schroeder mentioned them at his clinic as well as in his book. If the cancer is located beneath the mucous membrane of the neck, *i. e.*, if it is a circumscribed submucous tumor, then the high or supravaginal amputation of the cervix by wedge shaped excision Schroeder's operation, in indicated. But, if the cancer starts from the mucous membrane of the cervical canal or of the body of the womb, the extirpation of the whole uterus is required. However it is doubtful that in this case even the complete operation will remove all infiltrated tissue, because from these parts the cancer cells are rapidly carried by the lymphatic vessels to the connective tissue in the neighborhood of the womb—to the perimetrium and parametrium. These three points are what Schroeder especially dwells upon.

Dr. Mudd.—Dr. Bremer's remarks relative to the action of the lymphatics in causing infiltration and by Dr. Riesmeyer, in his allusions to the point from which the cancer springs, suggest that, as a matter of fact, almost all the cases of cancer of the uterus, in which the growth started in the neck have died from the extension of the disease not into the uterine wall, but into the vaginal wall and into the connective tissue about it. The uterus is infiltrated and is diseased not unfrequently, but it is in that character of growth which begins well up in the uterine body; these portions become affected and result in death. It becomes a question as to how much is gained by the removal of the uterus. If we can remove fully the diseased growth, leaving the body of the uterus intact, it is a part of the tissue that is not so likely to be involved as the connective tissue, of the broad ligaments on either side, or the vagina, or towards the bladder or rectum; either of those regions is more apt to become involved than the uterus itself. I think that is the experience of most of those who have observed these cases.

Dr. Bond.—Fitch had adopted a method, different from the others: it consists in making his division upon the side first, so as to see what is the condition of the broad ligaments and if he finds them involved, he abandons the operation. The reason he prefers this method is because it enables him to determine before hand the propriety of proceeding with the operation.

Dr. Hulbert.—By way of explanation of Dr. Mudd's remark in regard to the reason why the retraction of the anterior wall of the vagina occurred, I simply wish to say that the anatomical relations of the parts was very decidedly changed by the preliminary prolapse that I resorted to—I prolapsed the uterus as far as I could before I made the incision, so as to produce more or less relaxation. I did not include the mucous membrane of the vagina in the ligature but cut through it so the ligature would sink into the cellular tissue, and in that way it freed the mucous membrane very decidedly. I do not know how to account for the retraction except in the way I have mentioned; there was no tension whatever.

Dr. Bond.—Did you use the knife in accomplishing the separation from the bladder?

Dr. Hulbert.—I used the knife to make the preliminary incision and afterwards the blunt end. The fistula was the resnlt of a mistake; I mistook the distance, and cut too freely and I was in the bladder before I knew it. The friability of the tissue of the bladder was not due to the presence of the disease; the tissue was perfectly normal so far as I could detect, that is there was no evidence of infiltration whatever, yet the ligatures would not hold; the tissue was a great deal softer than I would have supposed; it may be that the repeated attacks of vesical irritability caused the friability. So far as the risk in the operation is concerned; I think it is overestimated. I do not look upon extirpation of the uterus as so dangerous as a serious case of laparotomy; I do not think they can be compared as far as the risk to the life of the patient is concerned. I do not wish to be understood as saying that this is an easy operation, however; it is a difficult operation; it is a difficult matter to get the different layers of tissue in the proper relations and requires considerable time.

The statistics presented by our president, are, I take it, on a par with statistics in general. There is nothing which to my mind seems more unfair than the establishing of the value or success of an operation from statistics when we know nothing in regard to the relative conditions existing between the different cases. I think the remarks of Dr. Prewitt were very apropos on that point. The cases of partial extirpation, we may safely assume, from the standing of the physicians who performed the operations, were in cases in which the operator was satisfied that by a partial extirpation he would get rid of all the diseased tissue, and that means, of course, a very limited amount of disease; whereas in those cases where complete extirpation was found, the disease had been al-

lowed to progress, and operation was procrastinated for a long time.

When surgeons will extirpate the uterus as soon as they are satisfied there is a carcinomatous process of the uterus or cervix, I care not how superficial it may be, just that soon the statistics of complete extirpation of the uterus will more than favorably compare with those of partial extirpation or curetting. The fact is we have wasted too much time before the extirpation is performed. We are justified in resorting to the radical operation when we know that if we do not get the disease out, the patient is doomed and we do not know whether we are going to get it out by a partial operation or not, any more than we do know we will get it out by a complete extirpation, save that in the complete extirpation we take away more tissue and get further away from the site of the disease.

MCDOWELL DISTRICT MEDICAL SOCIETY.

Report of the 28th Semi-annual Session held at Henderson, Ky., Nov. 1 and 2, 1888.

The society convened in the council chamber in the city of Henderson, Ky., at 11 A. M., on Thursday, Nov. 1, 1888. Dr. E. H. Luckett, the president, called the society to order.

The meeting was then opened with prayer by Rev. Dr. D. O. Davies, of the first Presbyterian church.

The first paper was read by Dr. W. O. Roberts, professor of surgery in University of Louisville, being report of a case of meningocele, with operation by excision of sac, resulting in recovery.

In discussing this paper, Dr. W. F. Stirman, of Owensboro, reported a similar case in which the fluid was removed by aspiration with temporary improvement, when the sac, refilling, was again evacuated; this occurring several times, with improvement after each aspiration, the case ultimately resulting fatally by asthenia.

Dr. Arch Dixon, of Henderson, discussed the paper and reported a similar case in his own practice, treated by punctures with compression which improved so much as to inspire hopes of ultimate recovery, dying more than six months after the operation.

Dr. Ap Morgan Vance, of Louisville, participated in the discussion, and gave the statistics of fatality in these cases as very high, recoveries being quite exceptional.

Dr. Edwin Walker, of Evansville, read the next paper on "Some of the Disadvantages of Antiseptics," relating a case in which he performed a laparotomy with all proper antiseptic precautions, but in which suppuration occurred in the suture holes, etc.; he seemed to be of the opinion that the carbolic acid solution in which his sutures were kept either failed to render aseptic, or in some way caused the suppuration, or that the sutures had dried, and the acid having crystallized on them, produced irritation and suppuration.

Prof. E. R. Palmer, of the University of Louisville, in discussing the paper, remarked that a solution of carbolic acid certainly could not produce the streptococcus, that it was possible that the pus organism obtained entrance by being on the fingers of the operator or his assistants, or on the sutures, or in the bottle in which they were kept; certainly carbolic acid will not produce this organism.

Dr. Palmer, in this connection, reported a case of gonorrhea in a female, where among other things prescribed for her as injection a 1 in 2000 sol. bichl. mercury was used, which was followed by salivation and mercurial toxemia.

Dr. Arch Dixon, of Henderson, Ky., in discussing Dr. Walker's paper, referred to a case of abortion, in which he directed the use as a vaginal injection of a 1 in 5000 sol. bichloride, with the result of the occurrence of salivation and severe diarrhea.

Dr. A. M. Owen, of Evansville, Ind., and others engaged in the discussion on this paper, Dr. Roberts, of Louisville, stating that he did not use, in his laparotomies, any antiseptics inside of the abdominal cavity.

In reply to a question from Dr. Ap Morgan Vance, as to whether Dr. Roberts be-

lieved pus could be formed without the presence of the streptococcus, Dr. R. said that pus may form without the presence of this micro-organism, as in the cold abscess or whitlow.

Dr. W. F. Stirman asked if constant irritation of a part would not produce retrograde metamorphosis and finally leucocytes and pus.

THURSDAY, NOV. 1.—AFTERNOON SESSION.

Dr. W. Cheatham, Professor of Ophthalmology, Otology and Laryngology, of the University of Louisville, read a very able and interesting paper on granular lids, with treatment, etc. This paper was an eminently practical one, and coming from a man of Dr. Cheatham's large and mature experience will prove of great benefit to the general practitioner.

Dr. S. G. Dabney discussed this paper, bringing out several important points in regard to the contra-indications for atropia in trachoma and other diseases of the eye.

Dr. Ap Morgan Vance then read a report of cases in surgery. Among othe rs was an incurable case of double equino-varus, with great deformity, in which the doctor amputated both limbs as the only and best resort to restore locomotion, by means of artificial limbs, which was successfully done to the great advantage of the patient. Also a case of pyo-nephrosis, with nephrectomy and evacuation of pus, with great improvement in the condition of the patient, a fistule still remaining, however, with moderate pus discharge, etc.

Dr. Vance asked, "what would be the best means of closing this opening?"

Dr. Vance remarked that the nephrectomy had developed the fact that the kidney had disappeared, and the capsule only remained, filled with pus. Also a case of ovarian cyst, which had been tapped 150 times with scarcely a square inch of skin on abdomen without a scar from these many tappings—all of which this remarkable patient had survived. There were several other remarkable cases reported in the same paper.

The paper was discussed by Prof. J. M. Mathews, of the Kentucky school of medicine, and by Prof. Roberts and others, developing many points of surgical importance and interest in the experience and practice of these eminent gentlemen.

Dr. I. N. Love, editor of the St. Louis MEDICAL REVIEW, then read an exhaustive and able paper on a subject of the first importance and interest to every practitioner of medicine, viz., "Infantile Convulsions."

This paper attracted the profound attention of the members of the society for its importance and for its eminently practical character, and also for its many useful suggestions or points heretofore ignored or neglected, as the importance of taking the temperature in every case of convulsions, preferably in the rectum, remembering how often infantile convulsions ushered in the eruptive fevers, how often they were refiex, and the importance of ascertaining the causes and removing the same by prompt and rational treatment, calling particular attention to the abuse of hot baths, mustard baths, etc., their disadvantages and dangers, etc. Lack of space prevents a full analysis of Dr. Love's excellent paper.

The paper was discussed by Dr. Walker, of Evansville, Dr. Dabney, of Louisville, and Dr. Dixon, of Henderson, Ky., the latter giving a case of reflex convulsions, occurring in his practice, from indigestion, developing in after life into a confirmed case of epilepsy. He recommended hypodermic morphia in quantity carefully adjusted to the age to control the convulsions.

Dr. S. G. Dabney, of Louisvlile, then read an able paper on Purulent Ophthalmia, which was discussed fully and lucidly by Dr. R. L. Thomson, of Saint Louis. Dr. J. C. Hoover, of Pleasant Ridge, Ky., then read a paper on Pseudo-Membranous Laryngitis—which was discussed by Dr. I. N. Love—Dr. Geo. Cook, of Indianapolis, Ind., then read a paper on Villous Tumors of the Rectum, with an illnstrative case of such tumor of the rectum which Dr. Cook successfully removed. Dr. J. M. Mathews, of Louisville, discussed the paper and tumor very fully. The tumor

was exhibited and examined by the members of the Society.

FRIDAY MORNING, NOV. 2.

Prof. J. M. Mathews read a paper on Fecal Impaction. This was an able and interesting paper of much surgical importance, especially in the very practical suggestions offered in the diagnosis and treatment of these heretofore obscure cases. In discussing the paper, Dr. Arch Dixon, of Henderson, gave several interesting illustrative cases from his practice, one of which had been diagnosed as tuberculosis of the bowels. The patient recovered after a difficult operation and treatment. Dr. A. M. Owen also participated in the discussion of this important paper, having himself reported a number of cases of fecal impaction and explained his successful management of the same by copious enemas etc., to the society at the meeting held in this city a year ago.

Dr. A. M. Owen then reported two cases of successful resection of the ankle joint for the effects of fractures; Dr. Owen also exhibited a tumor removed by him, consisting of the the uterus, ovaries and tubes, all matted together in an immense fibroid mass. Drs. Ap Morgan Vance and Dixon made some remarks on the specimen shown. A paper was then read by Dr. S. C. Smith on the Differential Diagnosis of Adynamic Malarial and Enteric Fevers.

This paper ably discussed by Dr. I. N. Love, of St. Louis, and also by Dr. Dixon, of Henderson, who gave the following recipe as a peculiarly effective one as an antipyretic in continued forms of malarial fever, viz.

℞ Acid salicylic - - - ʒiij.
Ammon. carbon - - ʒiij.
Aqu. pippentac - - ℥iv.

This forms a beautiful clear solution of salicylate of ammonium particularly adapted to adynamic fevers.

Dr. Love deprecated treating enteric or low forms of fever too much, and was disposed to rely most on nourishment, nursing and good hygyenic conditions, than on medication, and advised treating any and all complications arising or existing in these continued fevers, whether malarial or typhoid. Dr Smith in closing the discussion said that the plan of treatment sketched by Dr. Love was in accordance with his own views and practice. Dr. B. F. Eager, of Hopkinsville, Ky., not having present his paper on "Popular Errors Concerning the Insane," was read by title only. A valuable paper by Drs. Dixon and Brown, was also read by title only on account of lack of time. The Society than adjourned to meet at Owensboro, Davis Co.Ky., on the second Thursday in May, 1889.

S. C. SMITH,
Secretary, pro tem.

DIAGNOSIS EXTRAORDINARY.—Our American brethren seem to be a long way ahead of us in the use of the microscope in the examination of the blood for diagnostic purposes, If an article, which has lately come under our notice, is by an entirely trustworthy observer. After describing briefly his microscope, with which he says, "I get an amplification of 500 diameters, which will settle positively to my mind whether the patient has pre-tuberculosis (so important as easily treated), tuberculosis, rheumatism, pre-embolism, anemia, fibrememia, syphilis, etc., or not. "Sometimes the blood has to be studied for five, ten, or fifteen minutes or more, but often one makes his diagnosis in short order". After this who will say that there is no royal road in medicine? Now that we have so ready a means of looking into the future, and determining whether or not a patient is going to be the subject of embolism or tuberculosis, it cannot be long before other conditions are also brought within our ken, and we may confidently look for the recognitions by similar means of other conditions, for instance, pre-cancer, and pre-insanity, etc. It is to be regretted that the author has not seen fit to impart to us any details of the appearances in the blood by which these various states reveal themselves to his tutored eye; but no doubt he will be willing to divulge his secret for a sufficient consideration, so we will hope that the Government of the United States will purchase the much-needed information of him, and

magnanimously make it public. Curiously enough, our author goes on to say that this mode of study does not throw aside other physical explorations,but this must be merely the outcome of excessive modesty on his part, as it is obvious that when others become as expert with the microscope as he is, all our present methods of physical examination will speedily become obselete.*Brit. Med. Jour.*

Cardiac Tonics.—Prof. Eichhorst, of Zurich, has made comparative observations on the strophanthus, digitalis. caffein, spartein, adonis vernalis and convallaria majalis, and arrives at the following conclusions:

1. Digitalis aud strophanthus both control the heart in the same manner, slowing, regulating and toning up its activity, and thus under certain circumstances increasing diuresis.

2. Digitalis acts more rapidly, and on the whole with more certainty than strophanthus.

3. Strophanthus is superior to digitalis in that it does not develop cumulative effects After six weeks use its favorable effect upon cardiac contraction was shown by sphygmographic tracings. In some cases it acted more favorably than digitalis.

4. Spartein sulphate has only a weak and unimportant action on the heart, and exerts no influence upon the renal functions.

5. Caffein has still less action on the heart than spartein, but it is an excellent diuretic.

6. Adonis and convallaria are unreliable in their effect upon the heart and kidneys, and in addition often cause nausea and vomiting.

In connection with these clinical observations, reference may be made to the pharmacological and chemical researches of MM. Catillon, Blondel, Bardet and Adrian, who have shown that the strophanthus found in the market differs very widely in the proportion of strophanthus contained in different specimens. In ten varieties examined by Catillon the proportion of strophanthus varied from two to fifty per mille. It is very probable that the divergent results obtained by different clinicians are due to the uncertainty of composition as shown by the researches mentioned.—*Med. News.*

Glycerine Clysters.—As a rule, the action of glycerine is prompt, the result following, in the large majority of instances, in from three or four to fifteen minutes. The dose administered varies from 3 to 6 grammes (that is, from 45 to 90 minims). Ullmann concludes that glycerine thus administered exerts a specific action upon the lower bowel, an action unattended by unpleasant sensations or unfavorable influences; that it is especially available when it is desirable to evacuate the lower bowel promptly, as before surgical operations, in accouchement, for purposes of rectal and vaginal investigations and the like. This method is also available when it is desirable to empty the lower bowel without exciting extensive peristalsis, as in cases of internal hemorrhage, hemoptysis, painful affections of the abdomen, or when, for any reason, it is undesirable to change the position of the patient in bed. In intestinal obstruction or fecal accumulation in the small intestine or in the upper part of the large intestine, or where constipation is due to acute or chronic catarrhal processes in the small intestine, or to obstruction by gallstones, glycerine injections are without effect. They are, by reason of the pain which in such conditions they occasion, contraindicated in ulceration of the rectum and painful inflammatory affections of adjacent parts, as acute prostatitis, parametritis, cystitis, and analogous processes.

In habitual constipation, glycerine injections are to be used for occasional relief, never habitually. The amount of irritation which they occasion, as shown by copious serous and mucous discharges containing numerous epithelial cells, indicates a danger that their too frequent use may cause local inflammation or ulceration.

We may add that we have thus employed glycerine with equally satisfactory results in the case both of infants and adults in hollow suppositories of cocoa butter—a more convenient method.—*Ed. Med. News.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 21. ST. LOUIS, NOVEMBER 24, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

IS HOMEOPATHY A PROFESSION OR A TRADE?

BY JOHN V. SHOEMAKER, A.M, M. D., PHILADELPHIA.

Both profession and trade as pursuits are equally honorable, as men may conduct them. Either may, comparing individuals in the opposite avocations, be followed more honorably than the other, in which event the higher honor obviously lies in the underlying fact. Nevertheless, it is equally true, generalizing the idea of profession as compared with that of trade, that profession differs from trade in respect of its upholding an ideal to be striven for, whereas trade possesses no such stimulus to right action. Profession declares a law, and seeks to abide by it, as well as to make the world receive it, while trade knows no law but that which it receives from outside limitations. Profession seeks to provide the world with that which mankind needs, but trade chiefly with that which it demands.

It is by this difference of criterion that homeopathy is to be condemned as a false profession and art of healing. Far be it from us to declare that there are not persons honestly practising homeopathy; we speak of general not of individual practice. Recognizing the boundlessness of the credulity of man, we must admit, when it is said of him that he is fearfully and wonderfully made, that far beyond the complexity of his physical organization, lie the marvels of his mental vagaries as well as his vast attainments. And when, futher, proceeding to the consideration of the moral man, we critically regard his central organ, conscience, no observer but is amazed at the apparent illimitability of its lesions, and tender as it may sometimes be, at its usual capacity of stretching, toughening and even vanishing amid the play of worldly circumstances.

All demonstrable knowledge, the confines of which are physical, is founded upon axioms that are equally open to the lowliest and loftiest intellect. These are the only firm ground upon which equally minds capable of but little advance beyond, up to those occupying the towering heights from which they set the pathways of the stars, are supported in their conclusions.

Different as is the mental stature of human beings, all are equally dependent upon the petty postulates that are self-evident to all. Undeniable by any one they are principles upon which all knowledge rests. What does homeopathy rest upon as asserted principles? Upon enunciations that, according to the consensus of mankind, are not principles; and it is only by the consensus of mankind that the existence or non-existence of a fundamental principle can be decided. If it be a fundamental principle, and it is, that a thing cannot exist and exist at the same time, then it is impossible for two contrary principles to exist at the same time. Yet, according to the theory of the homeopathist as to infinitesimal doses, the principle is affirmed that a part is equal to a whole, indeed, carried to his logical conclusion that a part is greater than the whole. But mankind believes it to be self-evident that the whole is greater than its parts. Which, then, is the existent principle in nature? For, as principles these two enunciations cannot co-exist.

The homeopathist enunciates, as another principle, that like things are cured by like. We know, of course, that the "like" does not

refer to things material, but to symptomatic likeness,but none the less does this, as well as other oracular utterance, deceive the unthinking vulgar. The things presented by this affirmed principle to the average mind, as alike, are not commensurable by any word, or even by any idea that has not taken the form of a word they are simply incommensurable, and the phrase similia similibus curantur, is a verbal trick that tickles the ear and escapes detection. Some theories bridge chasms in advance of science, but others, again, indefinitely retard its march. The theory of phlogiston served a purpose in the begining of real chemical research, while on the contrary the Ptolematic theory of celestial mechanics retarded the advance of astronomy. Homeopathy has not advanced along the lines of scientific thought, bridging as it goes but on the contrary destroying. It is not only the negation of scientific thought but of the common sense of mankind.

How then are we to account for the fact that a not disreputable body of men profess to believe in and practice a mode of treatment founded upon principles that are untenable, and that they have a following of people who believe in their school of medicine, some of whom are able to differentiate its practice so nicely as to find it good for certain and not for others, or good enough for their children but not for themselves?

Homeopathy is a profession, and homeopathy is a practice: two things that may be, and generally are in this case, very different. Homeopathy as profession rests where it rested with Hahnemann, with the enunciation of the dogmas already discussed, coupled with treatment closely allied to astrology with statements as to dynamic force in liquids increased by trituration (which a common doctor would suppose to be derived from mixing before using), absurd sensation-tests, and much that is transcendental.

Dr. Hering, of Philadelphia, an ardent disciple of Hahnemann, is proved by his chief work to have believed in the effect of phases of the moon on maladies. Indeed, they had according to him so close a relation to suffering humanity that a certain treatment might be indicated if a flush on the right cheek-bone corresponded with a certain lunar phase. There has been no overtly seceding body of homeopathists, and yet acceptance of a new school of homeopathy. There has been so far as we are able to ascertain even no repudiation on the part of the new school of a portion of the tenets of the old. We are, therefore, warranted in believing, in the absence of any authoritative declaration as to what constitutes orthodox homeopathy, that it rests on the dogmas which have been discussed—that is, so far as profession is concerned. But what of the present practice? Dr. Hering and other homeopathists did not scruple to assert that there had been a large secession from the true faith. They certainly ought to have known if it were so, and they certainly took the trouble to speak, if not aloud to the world, as if they repudiated the seceders. That there has been a change, and a great change in practice, every one who has seen much of the world can confirm them in having asserted. It is not so very long since homeopathists all but discarded surgery, many lamentable consequences following. They have changed all that now, at least to a large extent, and for years, too, many of their doses, although still infinitesimal in size, have been quite concentrated in strength and sometimes they have even given real old-fashioned doses without any apology.They are not alone among men in marching under banners representing principles long since discarded. There is reason for every thing, if haply by searching we can find it out. The tenets of homeopathists have served their purpose. Overdosing is largely a thing of the past, and Dr. Sangrado too has gone into perpetual exile.

The mission of homeopathists should have ended soon after poor old Hahnemann in his last days sat weakly in his arm-chair while his wife dispensed medicines for him to the assembled votaries of the new art of healing.

It has been proved by some of the ablest

minds that what is called economy in truth is legitimate, depending upon the circumstances of the particular case. No one can pretend that what is meat for men is food for babes and sucklings. But economy in truth is applicable only to incapacity of mind, whether from youth, lack of intelligence,or absence of knowledge necessarily preliminary to full understanding. It applies to a person, or to a limited class, always to the individual case, and never to the world at large. The use of economy in truth in a profession which appeals to the whole world for justification of its existence, is on moral and political grounds inadmissible. A medical profession so pursued cannot reach high excellence. It is impassible to conceive of correct practice based upon concealed principles, however true, still less based upon principles known to be false, and simultaneously affirmed to be true. Let Messieurs, the homeopathists, proclaim the principles of Hahnemann, and practice according to them, and we can have nothing to say, knowing that it is possible for men to believe any thing. Let them, as at present, permit the world to believe that they are still disciples of Hahnemann, modified (although it would be difficult to show that any modification is not subversion), and in practice violate, as they now do, the principles they affirm, and what can we say of them?

Have we now, seeking to prove our point proved, as the lawyers say, too much? proved that, af homeopathists have fallen back into the regular school of medicine, they virtually belong to that school, and largely practising according to its methods, cannot, at least on the score of not practising according to scientific methods be taken exception to by one who believes in the practice of the old school? No, that is the very point we are seeking to prove. But a man may, although holding correct views as to science or art, lie under many disabilities that would prevent him from acting as a teacher or practitioner, and no disability would be so great as to deal in divergent principles and practice. Homeopathy is, in the United States (excepting among a few old practitioners), on the one hand a mere name, and on the other a mixed practice—mixed, because the practitioner has enunciated, but long discarded, principles to uphold to the laity, and has also his convictions and conscience to satisfy. We cannot refuse to the intelligence of the modern homeopathic practitioner, the modest tribute to his intelligence of recognizing that he does not believe in homeopathy. It is not because he is not virtually one in faith with the regular practitioner that we cannot meet him in consultation, or otherwise, in the cause of suffering humanity. "No man," the Scriptures truly say, "can serve two masters, for either he will hate the one and love the other, or else he will hold to the one and despise the other." Evil would be the day, not for medical ethics alone,if two such antagonistic forces as the regular school of medicine and homeopathy should pretend to stand arrayed in the cause of humanity. Such a mantle of hypocrisy never before would have been assumed.

The one thing that the honest man has to do is to seek the truth and abide by it. To tamper with the false as hypothetically something that may be as good or better than what is actually believed, on good and sufficient grounds, is to falsify one's whole life. It is the current popular philosophy of the day, but none the less is it proof, not of liberality, but of indifference and hypocrisy,and in matter of judgment, imbecility. The day of the mysterious and oracular physician has passed away. The modern physician, man of the world, no longer mysterious or oracular, fears not amid the many conquests of science to acknowledge frankly his limitations, and walks abroad on his mission as the bearer of balm from a profession which has, with Indians and homeopathists, no arcana of mysteries. but is in the light of day open to the view of all, from illiterate to erudite, offering to the favored of nature the loftiest seats for occupancy, while to the lowliest of the laity it presents, as far as they can seize it, at least the truth and nothing but the truth, if forever it be impossible for any to impart or attain to knowledge of the whole.

REPORT OF A CASE OF EXOMPHALUS.

BY W. B. DORSETT, M.D., ST. LOUIS.
Superintendent St. Louis Female Hospital.

Read before the St. Louis Medical Society, Nov. 66, 1888.

A few evenings since I was sent for to assist Dr. T. J. Harvey with the following described case, and from him got this history:

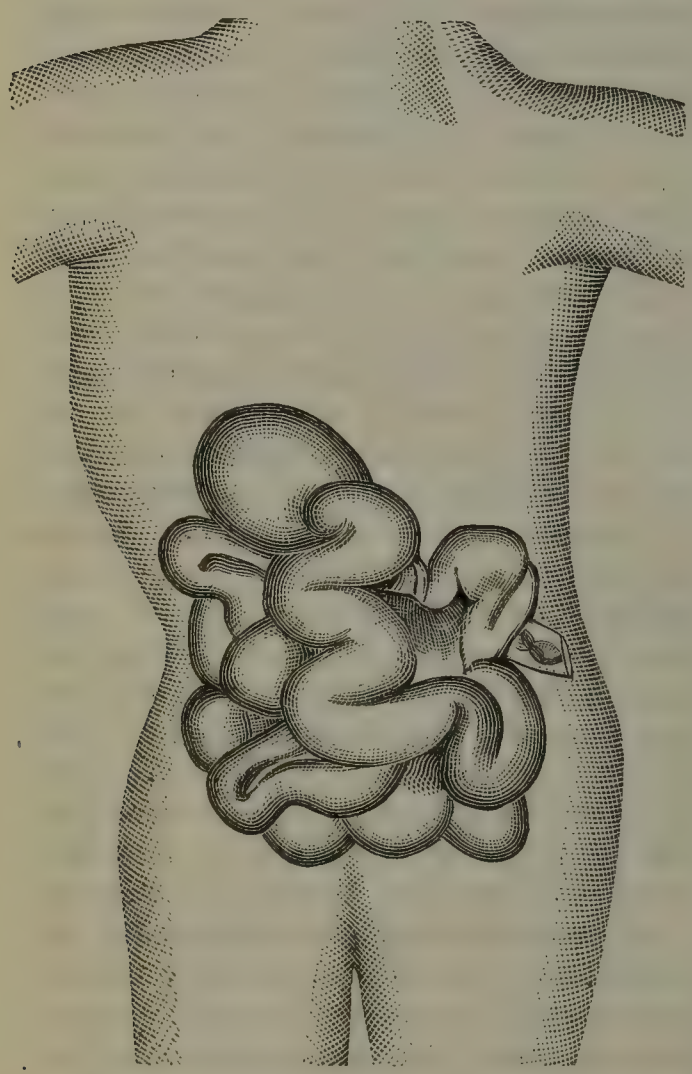

FIG. 1.

Mrs. K., age 30 years, married, is strong and healthy. He had delivered her about two and a half years ago of a well developed child, which is now living and enjoying good health. The woman stated to her physician that she had, during the third month of this, her last pregnancy, fallen from a ladder; but beyond a little "shaking up," she was not inconvenienced in the least. She also stated that she was confident she had not yet arrived at her full term of pregnancy, that she thought she "was only eight months gone." On making the ordinary vaginal examination, nothing unusual was noticed, vertex presentation and labor in all of its stages perfectly normal.

When I arrived, two hours after the delivery, the child presented this condition, it was lying in its grandmother's lap still unwashed and covered with vernix caseosa and soiled linen, and thoroughly chilled. Upon removing the covering I found a child rather small, weight about five pounds, head, upper extremities, chest, spine, lower extremities and left side of abdomen well formed, right side of abdominal wall very much contracted, and presenting from before backward a concave appearance, as I have tried to show in this drawing, fig. 1. The lower two-thirds of the stomach and all of the small intestines, as far as the ileo-cecal junction, including the greater portion of the mesentery, entirely outside of the abdominal cavity. This mass was of a dark color, and as before mentioned, very cold. It was not covered by omentum or peritoneum. The child was vomiting a dark grumous material which I took to be meconium, and seemed to be suffering with other symptoms of strangulated bowel. This mass covered almost the entire anterior aspect of the abdomen, and was attached only by a small pedicle.

The physician in attendance informed me that he had worked for over an hour trying to reduce this mass, but had been unable to do so. After washing the child thoroughly with warm water which had previously been boiled, and enveloping this mass of protruding intestines in warm, moist flannels, he and I together tried for nearly another hour to reduce it. As it was greatly distended with gas, I punctured it in several places, but to no effect. I then insinuated my finger into the cavity by the side of the stomach and with a bistoury, enlarged the opening and found there was a small cavity only about half as large as normal, and entirely too small to hold this mass. I then made an incision into the gut, cutting through to the mesentery, with the hope of allowing the remain-

ing gas to escape, and with the hope of diminishing the size of the mass. This cut had the effect of liberating the gas, but I found it still too large for so small a cavity. What was now to be done? After some little thought I concluded to resect the bowel, and accordingly did so, removing between six and seven inches of the gut, and uniting the the severed ends with the Lembert suture, and the mesentery with the continuous catgut suture.

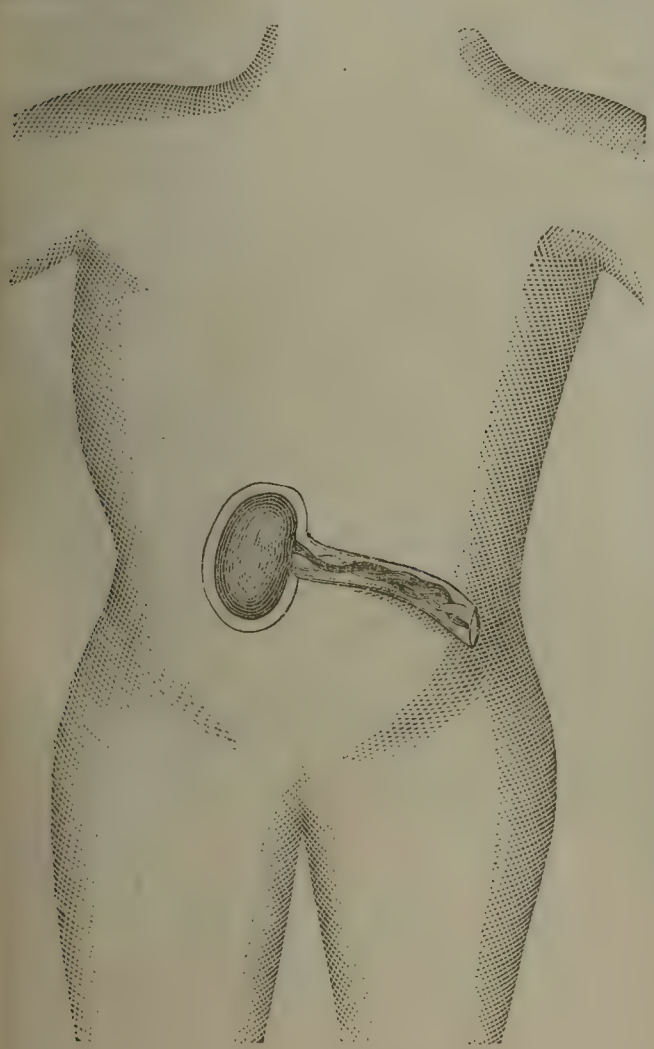

Fig. 2.

This operation was attended with many difficulties as the only light we had was a small coaloil lamp and the child was held in the lap of a nervous woman. The mass was now put into the abdomen, not however without some difficulty. After the reduction of the hernia, the opening presented somewhat the appearance as is shown in the drawing, fig. 2. A kidney shaped opening with the hilus looking toward the right, the long diameter vertical measuring two and a half inches, and the pelvis to the left, the umbilicus with the cord representing the ureter.

Upon a closer inspection of this opening, the vessels of the cord could be seen passing in at the left side, the umbilical vein passing along the left and superior border, and across toward the right side on its way to the liver. The cutaneous surface of the abdomen was seen blending with the peritoneal lining of the abdominal cavity, forming a perfectly smooth margin. This margin was hard and unyielding to the touch, and felt like cicatricial tissue. This condition led me to believe that the intestines must have been developed outside of their natural cavity, and nature failing to enclose them, had in her efforts formed this band. Arrest of development must have taken place at the third month of gestation, the period at which the walls unite, and the bowels continuing to develop had become strangulated, the passage of the child's head first through the maternal parts may have by the dragging force, aggravated this irreducible condition.

The margins of this ring, after the reduction, were pared, drawn together and dressed, as in the ordinary laparotomy. The child was cold and almost pulseless after the completion of the operation, but after being wrapped up as warm as possible, and small quantities of whisky administered several times during the night, it reacted nicely, and when I called next morning was nursing and seemed as lively as any little one of its age. It did well till about noon, when it began gradually to sink, and died late in the afternoon.

From what this condition arose is a question. Was the fall, at the third month of gestation, a factor in the case, either by the direct violence inflicted upon the mother, or by the ensuing shock producing an impression upon the nervous system just at this time, culminating in arrest of development of the abdominal walls of the fetus? This certainly furnishes food for further thought. Did the theory of maternal impressions play a part in this case? To this condition of de-

formity in the fetus or newly born, writers upon this subject have seen fit to apply the name, *Exomphalus*, from the Greek, signifying a "rupture at the navel." This does not seem to me to express the idea perfectly. Still for want of a better one,I have chosen it. As to the literature on this subject, little has been written, and no surgical measures to correct this deplorable state of affairs has heretofore been undertaken (so far as I can ascertain). The deformity is exceedingly rare, and abdominal surgery is only in its infancy. And then again, but very few children are born alive with this deformity, these are some reasons why the profession has been so silent on this subject.

In an article by W. Xavier Sudduth, in the *Annual of Universal Med. Sci.*, vol. v., p. 449, mention is made of a case reported by Simpson before the Edinburg Obstetrical Society, of an exomphalic fetus in which the whole contents of the abdominal cavity were outside of the abdomen, the labor in this case was premature. "Out of 15 such cases of exomphalus, abdominal presentations were met with in 13." He calls attention to a case described by Hawkins of a fetus "in which all of the intestines were outside of the abdomen, and mentions other abnormalities existing in the same fetus."

Text books on general surgery scarcely mention the condition, to say nothing of their silence in suggesting the treatment of such cases. T. Holmes' Surgical Treatment of Diseases of Infancy and Childhood. 2nd, Ed. p. 559, while speaking of umbilical hernia says: "Sometimes the whole of the anterior parietes of the abdomen, or a great extent of them are unenclosed, and a mass of the abdominal viscera protrudes, constituting what is known as exomphalus;" and adds: "I have thought it proper to notice this condition, though it seldom, if ever, admits of surgical treatment." He then says: "Mr. Cooper Forster relates a case in which a large protrusion" (does not say how much or whether it was strangulated) "became apparently spontaneously cured after the sloughing of its coverings;and other remarkable cases of cure are on record."

Judging from what I have read, and from my own experience, I am led to believe that these cases are very rare. As to the procedure in this particular case I have little to say. It was not a parallel case with that mentioned by Forster, nor was the treatment in accordance with his. To keep such a mass in with any sort of a bandage or truss as hinted at by Holmes, was entirely out of the question. The strangulation must of necessity be relieved at once, and to do so, and to place the mass within its natural cavity was to my mind the most rational treatment. I think the subsequent condition of the child on the next morning was proof enough of this. As to the cause of death, I confess I do not know, unless it was that it was a premature child. I hardy hoped to get a perfect union in the abdominal wound, for the tension was too great,and the stitches, if not removed in a short time, would have sloughed out. Then,had the child been a mature one and have lived, a pad or truss of some kind could possibly have been fitted to retain the hernia; or a subsequent plastic operation been devised. "Wise and masterly inactivity," is a good motto—sometimes, but did not, I think, apply to this case. In these days of abdominal surgery, and I may add, asepticism and antisepticism something better than "letting it alone," should be done, and should I meet with another such case, I am of the opinion I would very probably treat it the same way as I did the one I have described.

As far as I have been able to learn, this is the first time this operation has been performed for the relief of this abnormal condition.

A CASE OF RUPTURED TUBAL PREGNANCY.

BY JOHN A. HORNSBY, M. D.

Read before the St. Louis Medical Society.

Mrs. B., a strong German woman, 28 years of age, five years married, one child, four years of age, no other pregnancy, was taken

ill on Sunday morning the 14th inst, at 10 o'clock. She had gone a few blocks from home on business, and while standing talking with some one, was suddenly seized with violent pains, which were so cramping in their nature as to force her to lie down at once and on the spot.

I saw her fifteen minutes after the onset of the attack, when the following symptoms presented themselves; excruciating pain of a paroxysmal character, in the lower part of the hypogastric region; tenderness over the whole lower abdomen, to such a degree that the slightest touch induced a paroxysm of agonizing pain; skin cold and clammy, pulse weak, thready, and 130 to the minute; temperature (taken somewhat unsatisfactorily,) 97 degrees.

The indications were—as I saw them—to relieve the exhausting pain as speedily as possible, and to this end, I applied hot poultices to the whole abdomen, and gave one quarter grain sulphate morphia hypodermically; this injection I was compelled to repeat four times within the hour before the last diminution in the severity of the paroxysms was distinguishable.

When relief in some measure was obtained, I sought for a diagnosis. The lady had not been feeling well for some days; she had suffered from "pain in the back" and lower extremities, a little headache, and loss of appetite, all of which she attributed to a constipation, which was persistent and of quite long standing—the bowels not having moved for five days and then unsatisfactorily. Last menstruation was on September 1, just six weeks before the present illness; she believed herself pregnant, but reported irregularities in her "periods." She had followed her usual avocations about the house until the onset of the attack which I was called upon to treat.

Physical examination discovered a tympanitic distention of the abdomen—(this scarcely an hour after first symptoms of illness) intense pain upon either gentle palpation or light percussion over the lower middle abdomen, and what I took to be a solid, abnormal lump at the usual site of a distended bladder; I am doubtful about this last however, from the fact that anything like a satisfactory examination at this time almost threw her into convulsions, so great was the pain produced. Vaginal examination gave me no clue;there was that same acute pain upon pressure, by the finger, of the uterus upward, but otherwise, affairs here were in a normal condition. Rectal exploration gave like negative results; the rectum itself was empty, and I thought very dry; no feces discoverable as far as the sigmoid flexure of the colon, but there was present that same acute pain upon pressure at any point about the upper pelvis.

Thoroughly satisfied that I had to do with an intestinal obstruction of some sort, as the prime lesion, I at once set about to evacuate the bowels. I gave an enema of perhaps three-quarts of warm flax-seed mucilage water which I succeeded in having retained one hour; upon expulsion, there accompanied the injected matter, only two compact masses of fecal matter about the size of a hazel-nut. Now fully assured of my diagnosis, I gave 10 grains of calomel with 15 of compound jalap powder. About an hour prior to the administration of the last named agents, vomiting had set in with some persistency. The matter ejected consisted of only the normal stomach fluids some water and a little tea which had been given by the family. There was entire absence of fecal odor. I thought it possible that the vomiting was due to the morphia, and made less moment of this symptom when I found that I could in a large measure control it with the water of cherry laurel.

At 4 o'clock P. M.,—about six hours after the commencement of the attack and about four hours after the exhibition of the purgatives, I repeated the enema using as before as much fluid as I could conveniently force into the bowel again about three quarts. This came away after retention for two hours, bringing with it one very small lump of fecal matter—smaller than before. Hot poultices had been kept to the abdomen constantly up to this time, and in fact during the whole of the first

four hours, not only because I believed them to be of benefit, but because they gave something more like relief from pain than anything I could suggest. During this time—up to 4 o'clock—the pains had continued, in a less violent form however, and with much less of the paroxysmal character; the temperature had persisted at the 97 notch, the pulse had grown somewhat less thready, slower, and better in volume; the coldness of the extremities had disappeared under the constant application of hot irons and jugs of hot water, and my patient was in every way more comfortable.

This covers the history of the case up to 4 o'clock on Monday morning, when vomiting recommenced, after having been absent since 9 o'clock of the previous evening. Mrs. B. had slept a little during the night, and was stronger. The cherry laurel water again controlled the vomiting, and consequently the very distressing retching which had accompanied it.

At 9 o'clock on Monday morning, I repeated the copious injection of flax seed water, this time adding a little castile soap; the temperature was still 97°, pulse 100 but of better volume and stronger than it had been at any time. The recurring pains were less severe and were described by the sufferer as of peristaltic character—"griping," she said. The abdomen was tympanitic over its entire extent, and extremely tender upon the slightest palpation or percussion. The seat of active pain had shifted from the supra-pubic, to the ileo-cecal region, but was less circumscribed in area than it had been. I gave, beside the enema, and the renewed application of the hot poultices, full doses of magnesia lphate, repeated three times at intervals of three hours. Peristalsis became great and painful under these agents and my patient became weak and again cold at the extremities. The temperature remained steadily at 97°, the pulse went to 132, and became alarm ingly faulty as to volume as well as to rhythm. A hypodermic injection of morphia and brandy, was given to relieve the pain and improve the strength, and it did both.

This brings me to 5 o'clock on Monday evening, or thirty one hours after the attack was begun. Believing that surgical procedure was now the dernier ressort, I demanded consultation, which had been withheld from me up this time, and called upon Dr. Y. H. Bond, who saw the case with me at about six o'clock of the same evening. After a most searching inquiry, Dr. Bond agreed with me as to the extremity of the case, but suggested as a last appeal for confirmatory diagnosis, Senn's hydrogen gas test, to which I readily assented, and Dr. A. H. Meisenbach being especially skilled in the application of this test, was telephoned for. While awaiting his arrival, I gave, at the suggestion of Dr. Bond, an enema of three quarts of olive oil, with the object in view of making a last effort to dislodge any impacte m ter that might per chance lie in the large bowel.

At 8 o'clock we were prepared to make the hydrogen gas test, and the patient was fully anesthetized, chloroform being used. Before beginning the test, the anesthetic state of the patient was taken advantage of to secure if possible, a more satisfactory physical examination of the parts involved; inquiry per vaginam and per rectum yielded only negative results as before, and the tympanitic distention of the abdomen prevented anything like an accurate exploration of that region; however, the delicate ear could detect a faint dulness of very small area at the point normallyoccupied by the ileo-cecal valves. Gaseous distention of the intestine was now given. Almost immediately upon opening the stop cock of the bag, quite a loud gurgling was heard and felt at the sigmoid flexure of the colon, the gas beginning to pass through the olive oil most of which was still retained. A moment later, the same gurgling was heard, fainter yet distinctly at the ileo-cecal valve, and general distention of the intestine was to be perceived—or rather I should say, general distention of the abdomen. The immediate region of the stomach partook of this inflati on and it was agreed that hydrogen gas occupied the whole of the alimentary tract from the sphincter ani to the esophagus. In order to

prove this fact or disprove it, a stomach tube was sent into the stomach for the purpose of leading the gas to the outer atmosphere, but this procedure signally failed; a lighted taper held to the glass tubing at the proximal end of the stomach tube failed to ignite any gas which might be escaping—if indeed any gas did pass through at all. Eructations at this time, were wholly absent, notwithstanding the fact that the patient had passed wind upward at short intervals during the whole of the attack up to this time. Much of the gas released itself by the rectum upon the withdrawal of the rectal plug, and before we had ceased the experiment, all of the oil had been expelled to make place for hydrogen gas.

Having failed now to prove the non-obstructed condition of the bowels by leading the hydrogen gas from one end of the canal to the other, it was but logical to presume that great dilatation of the gut up to the point of obstruction had been sufficient to so press upon the stomach, already distended unquestionably by the natural gases forming therein, as to make it appear that that organ too, was full of hydrogen gas.

Thus far the original disagnosis had not been disturbed. There was present undoubtedly, a mechanical obstruction of the bowel, that much was assured. Our patient was growing weaker, and there was no prospect of relief.

Laparotomy was the alternative, and it was agreed that "if 'twere well 'twere done, 'twere well 'twere done quickly," and immediate preparations were set in motion for that purpose.

Dr. Bond, who did the operation, began, after the patient was well anesthetized and positioned, by an incision three inches long in the median line, the lower end of the cut falling short of the symphisis by above one inch. A careful dissection of the intermediate tissues ad seriatim, brought the operator safely down upon the peritoneum, which being exposed, presented a very dark, almost black surface, incision through this membrane discovered the cavity full to overflowing of venous blood progressing toward coagulation, that which lay about the opening came away readily in great quantity leaving behind only that which had already assumed the solid form. Firmly coagulated blood lay imbedded among the intestines, and the lower abdominal viscera a compact mass of the same environed a convolution of the small intestine which lay low in the hypogastric region, and it was to this condition that the intestinal obstruction owed its presence, the gut at this point was collapsed, and already gave evidence of the pressure that had been upon it. This evidence of the gravity of the lesion with which he had to deal, being removed in large quantities, the operator in further search for the seat of hemorrhage came upon a mass, which, upon first inspection appeared to be a blood clot of more than ordinary size, but which was at once found to be the fetus and its accompanying membranes which I have here for inspection. This was found situated in the right iliac region.

In discussing the case before the operation, Dr. Bond and I had fully canvassed the possibility of tubal pregnancy, and were not surprised to find this condition. Before the discovery of the embryo, however, Dr. Bond had made his diagnosis and had sought for and found the ruptured Fallopian tube which I have here. Ligation was of course performed, small silk being used, and the enlarged tube cut away, the ligature beiug left to itself. The abdomen was now carefully washed out, the intestines were replaced, those that had been allowed to escape, and the wound closed and dressed after the antiseptic manner. Keith's long glass drainage tube was placed at the lower extremity of the cut, and the sutures were of coarse silk and cat-gut.

The anesthetic had been well borne by th patient, and she was in good condition when put to bed. Hot bottles were applied, and brandy-hypodermic injections were given to hasten rally. It was now 1 o'clock. At 7 o'clock she had completely recovered from the shock of the operation and was doing

well; temperature was normal, pulse 100 and of good volume. A hour and a half later, the temperature had risen to 100°, and the pulse 115, the latter being just a trifle unsteady and not strong. 11:30 o'clock P. M., temperature 101°, pulse 120. About this time I turned the patient on the right side, which resulted in the escape of much sero-sanguineous fluid, and great relief to the patient in her breathing. From the time of the operation up to 3 o'clock of Tuesday, she had been allowed only toast water by the mouth in quantities not exceeding one dram at intervals of 10 minutes. To allay the longing for water, I gave on two occasions, enemata of warm water, about a pint at each time. At 5 o'clock I returned to her after an absence of two hours, and found her vomiting severely. She was very weak and exhausted, and clamored fiercely for water. I concluded to repeat the enema of warm water, and upon disarranging the coverlets to execute this purpose, found to my horror the dressings of the wound saturated with newly discharged blood of a consistency to preclude the possibility of its being highly colored abdominal fluid. Dr. Bond was at once telephoned for, and upon his arrival we went into the wound. The pedicle was intact and free from suspicion. No particular point of hemorrhage was discernible, but a rather free oozing from the posterior peritoneal surfaces about at the point of rest of the internal end of the glass drainage tube. The cavity was again cleansed thoroughly, the bleeding stopped and the wound again closed. The patient was placed in her bed again and the best processes for the induction of rally from shock were instituted, but she did not respond and died within the hour.

REMARKS BY YOUNG H. BOND, M. D.

As recounted in the paper, we canvassed the question of ruptured tubal pregnancy, in seeking a diagnosis, but the local indications, as well as the subjective history, were such as to make such a diagnosis merely hypothetical. The bowels were so distended with gas that bi-manual exploration of the pelvis was not possible, nor could the fingers introduced into the vagina or rectum discover any mass in Douglas' pouch, or about the uterus. Nor was the uterus deviated from its normal position, as is normally the case in hematocele (and in using the term hematocele I see no particular reason for excluding from that designation hemorrhage within the peritoneum of the pelvis, due to ruptured tubal pregnancy). The subjective symptoms, apart from the sudden and temporary reduction of temperature did not lend material aid in reaching a correct conclusion, for irregularity of menstruation was common with her. On the other hand, here was a patient, not given to a constipated habit, who had had no movement of the bowels for six days, notwithstanding the free exhibition of active cathartics, and the symptoms of severe colicky pains, and extreme depression were so closely akin to what we meet with in hernias and obstruction of the bowel that we were very naturally led to conclude such a diagnosis the most probable.

It was in this state of uncertainty that I recalled the observations contained in the paper of Dr. Arch Dixon, of Henderson, Ky., as to the use of Senn's test in determining obstruction of the bowel, a paper read at the recent meeting of the M. V. M. A. I felt that if gas could be forced from the anus to the stomach, and its presence in the stomach attested by the introduction of the stomach tube, that we would at least have removed one important element of uncertainty as to the diagnosis. It was faithfully tried, but no hydrogen gas escaped from the stomach tube, and as we subsequently learned none could possibly reach the stomach, for the bowel was obstructed, and the test in this case furnished a most positive course of action; there was no alternative but to do laparotomy. The general condition of the patient was so alarming that temporizing was out of the question, and we proceeded to enter the abdomen. I had no sooner reached the peritoneal cavity than a free flow of dark venous blood issued forth. At once the idea possessed me that here is a case of ruptured

tubal pregnancy. The presence of free blood in the cavity and the fragmentary indications of extra-uterine pregnancy already canvassed, caused me to go at once to the pelvis as the source of the hemorrhage. I introduced my two fingers with the view of finding the uterus as a guide to the appendages, but the abdomen and pelvis were so full of clotted blood that it was impossible to recognize the particular organs, and hence I proceeded to promptly relieve the abdomen of this confusing element. In doing so I brought up the fetus here presented, and in short order traced its source.

It will be remembered that the bowels were inflated with gas, and in consequence they so occupied the pelvic space that they had to be partially removed from the abdominal cavity to permit me to reach the tubal region. In drawing them out of the pelvis a loop of intestine, as withdrawn from the clotted blood, was observed to be in a collapsed condition, and herein was the explanation of the obstructed bowel, for the collapsed portion became distended as soon as brought up from the clots.

And right here I wish to emphasize the fact that in thus showing that the bowel could be obstructed by clotted blood in the abdomen, we have for all time to come established the fact that such a thing is possible, thus removing from the realm of theory a much controverted question.

It has been noted that constipation obtained in cases of hematocele, and argued that such resulted from paresis of the muscular coat of the bowel, in consequence of the profound disturbance to which the sympathetic ganglia were subjected; doubtless, such may be the case during the existence of shock, but we have shown that a real obstruction, the result of mechanical compression of the bowel, does take place, in some cases, at least. And herein lies an element of danger and a cause of death which hitherto could only be conjectured, and the possibility of which was denied by most all authorities.

Now, since freshly clotted blood in the pelvis can and does obstruct the bowel, what must be the fate of that patient whose gut is not promptly released from such engorgement? If we consider nature's process of dealing with such blood collections, we will find the answer. So soon as the system recuperates from the shock incident to the sudden hemorrhage an effort is made by peritoneal adhesion, or plastic lymph, to confine the foreign element and then a barrier or wall is thrown around it, the serous portions of the effused blood is absorbed, the mass thereby acquiring firmness and density, disappearing (in favorable cases) by resolution, in a period of time embraced in several weeks to six months or more, influenced by the quantity of effused product and the vitality of the general system. It will thus be seen that nature's method of dealing with such blood collections would, if possible, constrict to a greater extent, any section of bowel that might purchance suffer such entanglement.

We wish to drive down here a peg of progress in that we have shown from actual observation and demonstration, that physical obstruction of the bowel constitutes a real danger in certain cases of hematocele. And in future such a contingency must be borne in mind in determining operative interference.

It is unnecessary for me to dwell upon the part that Senn's test may play in revealing such a condition, for if we are sure of the hematocele by Senn's test we can determine whether or not the bowel is pervious, whilst the varying states of the stomach and bowel contents, may at times cause this test to fail of indicating perforation of these organs, I believe it will be found to be a sure guide as to obstruction, when used as practiced in this case.

There is one other observation made in this case that I wish to say something about, and that is the failure of the clotted blood in the pelvis to furnish an objective symptom, with one exception, so far as I know. All authorities speak of the diagnostic indication of the peri-uterine mass, occasioned by clotted blood: in this case no such mass could be made out, and Hart and Barbour assert that such can never be recognized until the hem-

orrhagic effusion has been confined above by peritoneal or plastic inclosure, for which time is required. In those cases in which a distinct tumor or mass is observed coincident with the attack, it is probable that hematoma or sub-peritoneal effusion constitutes the difficulty rather than a hemorrhage within the peritoneal cavity. The unfortunate result in this case is to be attributed to the downright disregard of instructions on the part of the attendants, most explicit orders had been given that the patient be allowed only warm toast water in teaspoonful quantities. She was not only given the toast water but was permitted to drink freely of iced water from the glass, and just how much water was thus poured into the stomach, can only be surmised, for patients under such circumstances are most importunate in their demands for cold fluids.

We know from experience that the stomach under these circumstances will not tolerate such allowance. Nor was there an attendant by the bed side of the patient all the time to restrain improper and dangerous movements of the body. In consequence of this vomiting and change of position by her unaided efforts the drainage tube so injured the vessels of the peritoneum by rude contact at its lowest point, that dangerous hemorrhage resulted, the flow of blood was so free that I expected to find a released pedicle as its source. To obtain the best possible results after laparotomy only trained nurses should be relied upon. In ovariotomies where we usually have time for pre-arrangement of details, we can accomplish our desires in this respect. But in the class of cases under consideration we are forced to yield, only too often, to the imperfect facilities of the occasion.

The condition of the wound and of the abdominal viscera, apart from the hemorrhage, could not have been in a state more favorable to recovery.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, NOVEMBER 24, 1888.

A CASE OF SPLENECTOMY.

Dr. Lawrason reports in the *N. O. Med. and Surg. Jour.* an interesting case—a woman suffering from uterine fibroids was treated by the use of electrolysis, with a marked good result. She stated that about two years previous to the time that she entered Charity Hospital a physician told her that she had "ague cake."

About two months after entering the hospital, while running in the ward, she was suddenly seized with a cutting excruciating pain in her left side. The following day Dr. Lawrason examined her and found a tumor which appeared to be an enlarged spleen. It was movable, unconnected with the uterus, and could be pushed up under the left ribs.

As there seemed to be a periodicity about the pains, quinine was given, but with no good effects. Hypodermic injections of strychnia and codeia were made twice daily into the substance of the spleen.

She became worse instead of better, and about three months later the abdomen was opened and a floating spleen was found, with a pedicle, eight inches in length, that was very much twisted. Two ligatures were applied, the pedicle divided between them, and the spleen removed. As a precaution against the occurrence of hemorrhage the arteries and veins of the stump were tied separately.

The spleen weighed 54¼ ounces, measured 12½ inches in length, 7 inches transversely and almost 4 inches at its thickest point. On being drained of its blood it shrank nearly to

normal size. The patient made a good recovery.

A London correspondent to the *N. O. Med. and Surg. Jour.* writes: The *Med. Times and Gazette* died because Messrs. Churchill found that they made no profit out of it; the *Med. Press and Circular* lives on its advertisements, and the circulation of the *Lancet* has contracted so much that it is living on its reputation and the splendid advertising clientele which that has earned for it. The future of medical journalism in Great Britain it is difficult to foresee, but it is impossible to view without some apprehension the probable extinction of all individual enterprises by the irresistible competition of a corporate organ."

If the circulation of the *Lancet* has contracted, it is not on account of a contraction of either the quality or quantity of information which its editors furnish the subscribers.

The British Medical Society is in a very flourishing condition and many new members have been added, but there will always be a sufficient number of physicians who are not members to support more than one journal in England.

Removal of Exostoses from the Ear.

Mr. Shield reported a case (*Brit. Med. Jour.*) in which he made a section of the auricle posteriorly, where the pinna joins the cranium, and turning the auricle forward exposed the auditory canal and made easy of access a bony growth, which he easily chiseled from its attachment to the wall of the canal and removed it. The auricle was replaced, sutured with catgut, and it readily united in its former position.

If a bony growth in the internal auditory canal has a pedicle, and is not located at the inner end of canal, it may be quite readily removed. But if it has a broad base of attachment, and of ivory hardness (as many of them are), its removal is one of the most difficult and dangerous operations that the aural surgeon is called upon to perform. In such cases the dental drill has been found of much service. Great care has to be exercised in using the drill, and a thorough knowledge of the anatomy of the ear is absolutely essential to an intelligent application of this instrument.

A Ladies' Early Morning League.

The *London Lancet* states that some ladies belonging to the highest circles of Parisian society have formed a league whose object is to change the prevailing customs, so that they will be more in harmony with the laws of health. The members of the league are to rise at seven in the morning, take a cold bath, and then enjoy a short canter on horseback. They are to entertain their friends at lunch rather than at dinner. The hour for retiring is ten o'clock, except when attending entertainments. Balls are to open at nine and finish at twelve. All athletic exercises are to be encouraged, especially fencing, which is becoming more and more fashionable among the ladies.

Like most other projectors of reform, the Early Morning League has a good cause, but in their enthusiasm they have undertaken so much that their efforts will most likely end in accomplishing nothing. Early to bed and early to rise is a most excellent maxim, but in speaking of the League the *Lancet* rightly says:

"They presuppose a society of pleasure-seekers and idlers. Putting aside the fact that the number of ladies who work is daily increasing, most men, even those who possess independent incomes, are engaged in some active profession or business. They could not attend at the early lunch, the early ride, and sometimes not even the early ball. If social entertainments have gradually been held at a later and still later hour, it is because the pressure of the day's business has so increased as to render these late hours more convenient. They are, however, none the less unhealthy, and Parisian ladies are to be congratulated on their effort to turn the

tide of fashion and to bring people back to more primitive and more natural customs.

Physical development is something that is much needed by American women, and judicious physical exercise is the only means of attaining this. Walking, horseback riding, calisthenics and attention to household duties are quite sufficient, and certainly more appropriate than the dangerous practice of playing with blunt swords.

Paris is the recognized center of fashion in dress, and it is a high authority in the matter of manners and customs, and it is to be hoped that this effort at reform may assume a form that is more compatible with the demands of commercial life.

Doctor's Signs.

A Paris correspondent to the *N. Y. Med. Jour.* tells of a "curious Parisian custom" that is adhered to by the greater number of the physicians there—no sign is to be seen on the front door or even on the door of the office, nothing to indicate who lives in the *appartement.* The *Med. Rec.* says:

"A slight tendency toward the Parisian idea in signs would be an excellent thing to infuse into the profession in this country, or at least some portions of it.

The size and prominence, the gilded or polychromatic aggressiveness of doctor's signs, depend measurably upon local custom. But, as a general rule, the bigger the sign the poorer the doctor, the more conspicuous the sign the more incompetent the owner.

Death loves a shining mark."

This Paris custom, if universally followed in this country would do much to check the growing tendency among the laity to change physicians on the slightest provocation. It would make a decided distinction between regulars and quack advertisers. Good physicians would become more thoroughly known, as necessity would compel the head of each household to learn where the services of a doctor could be obtained in cases of emergency.

In New York city, as a rule, physicians' signs are very modest. I do not advocate the adoption of the Parisian custom. So long as it is the custom for good physicians to have signs, they are indispensable. It is a deplorable fact that the laity has such limited means of distinguishing competent from incompetent practitioners. The newly fledged diploma-milled M. D. is placed on an equal footing (so far as the laity can know), with the thoroughly qualified ex-house surgeon of the best equipped hospital.

Attention to Minor Ailments.

The *London Lancet* says that in spite of the medical scepticism of the day, the public with a true enough instinct, still look to us mainly for treatment, and will not rest satisfied with a mere diagnosis or prognosis, however exhaustive and accurate. The power of handling with effect, the remedies at our disposal is one that we cannot afford to depreciate or despise. It is a power possessed in very different degrees even by men of distinguished talent.

The laity have become so well educated in regard to the various diseases (?) that many patients form their own conclusions as to the nature of their maladies; and it is getting to be too frequent for the patient to seek the advice of another, because the diagnosis of the attending physician does not agree with that of the patient. It would serve the interests of all concerned if the physicians would teach their patients to be content with a prognosis and leave the diagnosis and treatment to those who are capable of forming a judgment as to their value.

It is a common error among good honest physicians to taboo the minor ailments of their clientele, overlooking the fact that often it is more important to relieve a patient of anxiety concerning himself, or of annoyance and discomfort, than it would be to relieve him of a minor ache or pain. When a patient applies for treatment, a statement of his case should be patiently and carefully listened to by the physician, remembering that grave disorders often have few accompanying symptoms, and

the most trivial affection that is sufficient to cause the patient to seek relief is worthy of consideration.

Fertility of resource in the management of such cases marks the successful general practitioner. It is a common observation that the great advances made in the diagnosis of pathological conditions, and the unprecedented success of surgical operations for the relief of these, is in strong contrast to the seeming apathy on the part of the profession to the administration of medicines that were once the only source of relief.

Broad-Gauge.

The Journal of the American Medical Association is getting to be decidedly "broad-gauge;" it advertises in its editorial columns a new homeopathic periodical.

MC DOWELL DISTRICT MEDICAL SOCIETY.

Editorial Echoes of the Twenty-Eighth Semi-Annual Meeting at Henderson, Ky., November 1 and 2, 1888.

BY I. N. LOVE, M. D.

To state that this society is named after Ephraim McDowell the originator of ovariotomy would seem superfluous to a Kentucky doctor, but in Missouri where Joseph Nash McDowell and his son John J. McDowell were so well known the statement is in order, however, these are noble descendants of the same sire—and the work which they accomplished lives after them.

The cold shaft of marble erected over the grave of the great man in the little city of Danville, Ky., a few years ago by a grateful profession, was a graceful expression of noble sentiment, but the society which held its 28th meeting at Henderson, has within it possibilities which will make it an enduring,speaking monument of him when all the marble that has ever received polish or chisel at the hand of man shall have crumbled into dust.

* * *

No grander tribute could be paid any man than to have organized a body of earnest workers in the cause of science and humanity and have it adopt his name.

The McDowell Medical Society has a membership of 198,each and every one,let us hope, being ardent, active,working parts of a superb organization. A member of such a society with such a name, who does not work—who is not imbued with the spirit that animated him who lies in the silent church yard at Danville, is misplaced and had better far be frank and openly admit that he is out of his element. Such a one will hang like a stone upon the neck of the society—let him roll himself away, taking his proper place by the side of the marble and the dead of the Danville tomb.

* * *

The meeting at Henderson was a splendid one, viewed from every standpoint.

The papers were excellent, and President Luckett evidenced the fact that the society made no mistake when it elected him, but knew what it was doing.

Secretary S. C. Smith made not only an ideal secretary, but read one of the best,most practical papers on "Continued Fevers," I have heard in a long time.

The Review will publish it soon.

* * *

Arch. Dixon, Jno. Young Brown, S. C. Smith and P. H. Griffin were the four-horse team that carried the convention through to a successful issue and of that angelic quartette the Arch-angel was Dixon—the wheel-horse, the bell-wether, so to speak, of that district of Kentucky.

The opinion which I have long held that the practitioner in any community who several times a year, at great expense of time, mony and strength engages in work connected with medical societies, who leaves his field of labor and runs the risk of having his patients leave him for his apparent neglect is on general principles a most earnest, faithful and progressive representative of his guild

was strengthened by my visit to Henderson.

Wherever there have been gathered together in the name of medical science earnest thoughtful delvers during the past five years, Dixon has been there or thereabouts.

I find that the most excellent literary matter he has been furnishing our medical journals has been based upon honest, careful work and conversation with many of the leading citizens of the territory about him convinced me that he has things largely his own way.

He lives with his charming family in the homestead of his father, Ex Governor Arch. Dixon, which stands upon a promontory commanding a delightful view of the Ohio river for ten miles above and below.

The visiting members were given a most satisfying dinner in this old-fashioned home by the banks of the Ohio, and it was remarked that the rapid rolling river is slowly but surely washing away the grounds upon which the house stands, and it was the generally expressed opinion of all that with all due respect to the charming little city of Henderson, its leading doctor though held in great esteem should remove to a larger city, for his own sake at least.

* * *

The Louisville delegation consisting of Drs. Mathews, Cheatham, Palmer, Dabney, Roberts and Vance, all had papers and good ones too. In fact there must be something in the air of Louisville which accelerates the flow of ideas on the part of her medical men as more medical students, medical journals and journalistic contributions are turned out of that town (in proportion to population) than any in America.

* * *

Dr. Ap Morgan Vance presented an admirable series of surgical cases with specimens.

* * *

Evansville, Indiana, was represented by Drs. Owen, Walker, Weaver, Knapp and Hayden, the two first presenting papers (with specimens) on abdominal tumors.

* * *

Dr. J. C. Hoover, of Pleasant Ridge, Ky., read a full and exhaustive paper on "Pseudo Membranous Laryngitis," and gave evidence of the fact that he is an industrious reader, a close observer, and a careful collator of clinical observations.

* * *

In the evening the Barrett House was taken possession of by the elite and fashion of the city, headed by Mrs. Dr. Dixon, who is the youngest, handsomest and most fascinating and entertaining lady, to be the mother of full-grown children, it has ever been my good fortune to meet. In her home receiving her husband's friends, or in the banquet and dancing halls, where she was the directing, controlling and presiding genius, she shone resplendent as a bright, particular star, and inspired the thought that the man who did not win his spurs with such a divine inspiration as she could furnish did not deserve success —and at the same time there came the thought—the possession of such a gem must have been dependent upon the magnetic attractiveness and sterling worth of the possessor.

* * *

Kentucky has long been noted for her beautiful women, but the rosebud garden of girls which convened on this particular occasion surpassed anything it has ever been my lot to see. Our own Veiled Prophets' Ball of St. Louis every year furnishes a bevy of beauties rarely equalled, but if all the star-eyed, ox-eyed, varied forms of most perfect type were to be selected and grouped together they might equal but could not surpass the aggregation of Henderson's fair daughters.

I came, I saw, and except for the fact that I surrendered unconditionally to the attractions of a maiden from the Sunny South some eleven years ago, I should have been conquered.

* * *

At the hour of ten the banquet opened, and the feast of reason and flow of soul was unconfined. The solid nutriment was of a character to suit the most pronounced epicure, and the liquids were evidently an endorsement of the Scriptural injunction, "Look not

upon the wine when it is red," as white wines prevailed, but not still ones. At the close the champagne remaining was the only thing that was "extra dry."

* * *

Speeches? Of course there were speeches, and some good ones too,—particularly from those who represented the home of eloquence —Kentucky and Southern Indiana.

There were four regular toasts:

1. "The Ladies," responded to, of course, by their authorized spokesman, Dr. E. R. Palmer (popularly known as Palmer, the Superb), of Louisville.

2. "The Mississippi Valley Medical Association," responded to by I. N. Love, of St. Louis.

3. "The McDowell Medical Society," responded to by Dr. A. M. Owen, of Evansville, Ind.

4. "The Kentucky State Medical Society," responded to by Dr. J. M. Mathews, of Louisville.

At the conclusion a standing health was drunk to Dr. and Mrs. Arch. Dixon.

* * *

After the banquet the section on Dietetics met at the rooms of Senator Henry Dixon, where was discussed the merits of the Didelphys Virginiana as a nutrient. The following in addition to those previously mentioned were there in force, and took positions positive and pronounced upon one side or the other of the subject: Drs. Ned Conway (possessed of an agile jaw which was active and assiduous in asserting itself upon the affirmative side), G. W. Smith (an earnest, warm-hearted devotee to any worthy cause), H. T. Dade, Emmett Fleming, Jack Craig, Henry Rully, P. H. Banks, and Clyde Sugg, and as lay delegates the Hon. Henry C. Dixon, senator, and Hon. Phelps Sassuen, mayor of Henderson, both of whom manifested at all times an interest in the science of medicine. After full and free discussion it was unanimously resolved that the subject under consideration, the sarigue of the French belonging to the order of marsupials was an admirable thing and worthy of a place high on the diet list, when accompanied with proper trimmings, solvents and condiments.

* * *

At the close of the discussion the section entered upon the enjoyment of an hour or two of social converse, and the telling of stories and cracking of jokes was the order of the day. Some of the tales that were unfolded were very long, covered with more or less of a capillary growth, indicative of age, and were powerfully prehensile, but the majority were short, crisp and entertaining.

Dr. Palmer carried off the palm as a romancer, his presentment of the clinical case of an antiquated sinner, dying of double pneumonia, being only equalled as a tale by the one presented by Dr. Morgan Vance of an infant prodigy which he, however, was only able to get off by a process of amputation—his was securely and safely confined in a vial of alcohol, but Palmer's was unbottled on all occasions, and it was improved and improved and embellished every time it was exhibited.

The shafts of wit and wisdom that were aroused and erected were numerous, the bright scintillations of humor that passed to and fro through the temples, towers and domes of thonght there assembled were many, but we all know that "Time wrecks the proudest pile we raise; the towers, the domes, the temples fall; the fortress trembles and decays; one breath of song outlasts them all."

And so as easily as a feather is wafted downward from an eagle in his flight the inclination of all was song-ward.

There being no musical instruments present save a few *lyres* and they being pretty well worn out, vocal music was the order of the hour.

The man fit for treason, strategem and spoils was not there, for each and every one did "shed the light of hallowed song."

* * *

It is true some of the singers sang "songs without words," having forgotten the words, but they could furnish the sound and the melody—in other words, they could hum.

And indeed they did make it hum. Speaking of hum brings to mind that one song of all songs that are sung on Kentucky soil, The Old Kentucky Home, Good night. This song, by Stephen C. Foster, is one that will foster a love for old Kentucky as long as it is sung, and it will be sung till the end of time by all who have ever been sheltered 'neath the roof of a home in Kentucky—always hospitable, however humble.

By the way, how these songs that sing of home appeal to the hearts of home lovers and encourage domesticity and home getting; they are worth all the sonnets of sunny Italy, the sonatas and cantatas of La Belle France, and the music of the future of Germania. While the grand and glorious notes of Wagner's Lohengrin may appeal to the cerebral consciousness, the song which tells of the corn tops ripe, and the meadows in bloom, and the birds making music all the day, the possum and the coon, the valley, hill and shore, and the glimmer of the moon, the young folks rolling on the little cabin floor, and the sun shining bright in the old Kentucky home—such a song appeals to the heart, to the sentimental part, and he who cannot be reached by the appeal, deserves to be classified with the well known domesticated animal of the genus *Sus* of gluttonous and filthy habits kept for the fat and meat, called respectively lard and pork which it furnishes.

* * *

Every face looked into and every hand shaken in Henderson, emphasized the sentiment announced in the welcoming address of Mayor Sassenn, that, while it was his official duty to hand over the keys of the city to the visiting guests of Henderson and her young neighbor Audubon, he had to admit that they had no keys, but that every door stood wide open bidding all a cordial welcome.

* * *

As these notes which have been jotted down at odd intervals are being closed, the *N. Y. Med. Rec.*, of Nov. 17, arrives along with other exchanges, and it is among the first read as it certainly ranks among the first of the medical journals of America, and I am prompted to say that if its able enterprising and erudite editor will attend during the coming year, one session of the McDowell Medical Society in Kentucky, or the Mississippi Valley Medical Association either in St. Louis or Evansville in the side pocket of Indiana, I promise him that he will be more disposed to feel that life is worth living, his gray matter will be as active, his perceptions as keen, and the shining discs of blood which go coursing through his arteries and veins will carry a more perfect grade of hoemoglobin and be permeated with the glow of sunshine and good cheer, and his scientific acumen will be not in the least impaired.

* * *

The Review bids the members of the McDowell Medical Society "God bless you every one." Go on in your good work fully determined to be a credit to the noble name you bear.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Nov. 3, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Pritchard, M. D., Secretary.

Dr. W. B. Dorsett reported (see page 564) a case of exomphalus.

Dr. Meisenbach.—I would like to ask whether Dr. Dorsett thought that the intestinal tract was fully developed?

Dr. Dorsett.—All of the viscera that were outside were to my mind well developed. They had a dark color, whether due to peritonitis or not, I am not able to say. There was no imperforate anus. The gas in it might have been due to some peritonitis.

Dr. Y. H. Bond.—It used to be the custom to attribute to maternal impressions the cause of these deficiencies. I don't think such an opinion could be sustained at the present day, but if there is a member of the society here who holds that view we should like to hear him advance the arguments to prove it.

Dr. Wm. N. Beggs.—As has just been

said, in former years it was the custom to attribute such conditions to maternal impressions, but at the present day that theory has very little weight, not only with pathologists, but also with embryologists. They are now ascribed rather to unhygienic surroundings, and the poor health and mal-nutrition of the mother, the condition of the father not having so important a bearing.

I am somewhat surprised to notice the difference in the number of malformations occurring here and in Germany; as for example, we very seldom see cases of anencephalus in this country, the only cases which I have seen here having been preserved in alcohol, while during my stay in Kiel I saw within four months three fresh cases—which brings us to one of two thoughts: either such cases occur more frequently in Europe, or are published more frequently there than here. I think they occur more frequently, because of the condition of the working and lower classes (and these affections exist chiefly among them), whose condition is not so good as that of our own laboring classes. That is one of the chief arguments in favor of malnutrition as a cause of this want of development.

Dr. Edward Borck.—The gentleman who last spoke said that such cases were more frequent in Europe than here, but Dr. Dorsett and I hunted through the German, English and French medical works and we could find nothing of any importance in them. They said it occurred very seldom, and advised, for treatment, that they be left alone.

I think that Dr. Dorsett's idea of the treatment of the case was most excellent. This is the only case on record where an operation has been performed so early. The fact that it lived one day proved that something can be done. I have had the fortune to see one case in my life similar to this, in the practice of a friend of mine. That child lived more than one day. Nothing was done. The child was simply wrapped up and a bandage put about him. I think such operations are perfectly justifiable.

In regard to the idea that these are non-developments I would say this: That they may be in certain cases; here the walls of the abdomen on one side were perfectly normal; on the other side they were not. The intestines were of full size. Could it not be that the intestines were over-grown? My idea in regard to these congenital malformations is that there is a mechanical injury present. It is not the generally accepted idea of the profession, however. In this case the woman fell from a ladder. In the other case which I saw the husband kicked her on the abdomen.

I believe Dr. Dorsett closed the abdomen with sutures; if I had such a case I would probably pursue another plan. An incision has to be made if the opening is too small. I should take a straight needle threaded with silk and make a draw-string or buried suture and keep it there. You have no idea how you can stretch these abdominal walls. Cooper Forster says that some of these cases get well; therefore, if you could keep it there five or six months, of course you could then pare the edges and stitch them up in the ordinary manner, or perform a plastic operation which would not involve as much cutting of tissue.

Dr. C. D. Stevens.—I would like to ask the doctor if he thinks that talipes is the result of injury?

Dr. Borck.—Yes; I believe that every one of us is born with club-foot. When the child is born it has not got feet like we have, but they are bent in, and the moment it begins to walk they are straightened out. And the theory of mechanical injury is perfectly plausible—take every case of dry labor, nearly every child has a remaining club foot because the mechanical contractions of the uterus will produce it. Inquire of the mothers of such children, and you will find absence of amniotic fluid to be the source, always.

Dr. Y. H. Bond.—Do you not attribute some importance to inherited deficiencies?

Dr. Borck.—I don't know; that may be a factor.

Dr. Meisenbach.—In these cases of dry labor are there club-feet that remain permanently after the child is viable?

Dr. Brock.—Not always, but they generally remain so. If there is deficiency of amniotic fluid, you have the little bones pressed in a certain position by the contractions of the walls of the uterus. Some grow large and the others are arrested in their development. It is because some bone has not been developed and the others are developed larger.

Dr. Stevens.—The reason I asked the question that I did is this: As I was stopping in a village in New York this summer, I saw a case of club-foot, the left being affected, and there was at the same time torticollis and also every indication of the child being idiotic. The physician in attendance was not very thoroughly posted and he asked whether this could have occurred from injury, the mother saying that she had worked at the wash-board during the pregnancy. I gave it as my opinion, although I had not studied the subject, that the external injury could not have caused the difficulty with the child.

Dr. Meisezbach.—Dr. Dorsett has to be congratulated in having operated on the youngest patient that any man perhaps will ever get to operate upon. Every one will sympathize with him in the adverse conditions under which he had to do the operation and there is no doubt that it was well done. As to the child's being viable after such an operation, it is a great question. There is a question whether there was not such a traction as to preclude the continuance of life, even had union of the walls taken place. Because if this amount of intestine had been out a number of months the cavity of the peritoneum must have been very small.

It does not seem to me that this case comes within the category of what we understand as exomphalus. In adults with umbilical hernia, there is still some skin covering the tumor. It seems to be rather a lack of development of the whole wall. If it were pure exomphalus there would be still a skin covering for the protruding intestines.

I have operated on several cases with a bad result in each case. What Dr. Borck has told us about bringing together the wound is very beautiful—theoretically. Dr. Dorsett did the right thing, but I think in the great majority of these cases the result is a foregone conclusion, not only on account of the exposure of the intestines for so long a time, but the shock of the operation alone, is such as to probably place a grave prognosis on the result.

In regard to dry labors I don't know whether Dr. Borck means that form of dry labor in which the fluid escapes, or that in whsch there is absence of the fluid.

Dr. Borck.—I mean those in which there is absence of the fluid.

Dr. Meisenbach.—Then I don't understand it at all. I fail to see how it is that you can have a condition of club-foot without there being some malnutrition of the tarsal joint.

Dr. Borck.—That is exactly what I told you.

Dr. Meisenbach.—I don't understand how the child is viable in that case where there is absence of fluid. There must be some fluid to keep it alive. If he means that the difficulty is produced by early rupture of the sac it is a very anomalous condition again. I wish the doctor would explain that a little more lucidly. I have never seen a case of talipes in which there was not some absorption of some bones of the tarsus and also of the ends of the tibia and fibula. The cause I am not able to tell. We find these malnutritions taking place where the women are strong and rugged.

Dr. Guhman.—There seems to be a misunderstanding between the gentlemen. I can explain how it may occur. The amniotic fluid escapes sometimes a whole month before the child is born, the contraction of the uterus is then acting on the child. Any one knows that in the foot presentation, where there is no fluid in the sac, the child will naturally fall down and it is done by compression of the foot. If the pressure is not kept up too long it will get well by itself. I have delivered women exactly one month after the fluid escaped and the children were alive.

Dr. H. Newland.—Was it not the urine that escaped and not the amniotic fluid?

Dr. Guhman.—I was present at the time and know that it was not.

Dr. W. Johnston.—The first speaker contended that it depended on the hygienic conditions and that was the prevailing view in Germany. Is that a logical conclusion? I would like to know if the hygienic conditions have anything to do with it, when the hen lays an egg and it is taken and laid away for a month or two, is hatched out by an incubator and a deformed chicken is the result. Is that dependent on any laws known to any member of this society? Go into your garden, you see the plants or vegetables deformed; does that depend on the hygienic conditions present or some law incomprehensible to us? I presume it is beyond the ken of the human mind.

Dr. Borck speaks of dry labor; there may be what some call dry labors with a deficiency of fluid. It is not absent, because we know that the method of producing abortion is to rupture the sac and allow the waters to escape. Is there any man that will believe that in taking the water away you will give rise to club-foot? It is too absurd to speak of.

We must approve of the skill of the treatment given by Dr. Dorsett. He made a laudable effort at saving the child by taking a piece of the bowel off and then returning the intestine to the cavity; the procedure was justifiable. Dr. Pollak recollects the case of a child that was born with a heart outside of the cavity. It lived one week.

Dr. Borck.—It is hardly worth while to answer Dr. Meisenbach; I think he understands what I mean. In some cases we have a large amount of fluid and the child has plenty of room; in others we have less and sometimes hardly any, then, of course, there must be more pressure and the fetus cannot move freely and you have an arrest of development as a consequence.

Dr. Beggs.—The doctrine that mechanical injury produces malformations, is, I think entirely unfounded so far as we know in the study of embryology. The malformations are more difficult to explain than those of excess of development. There is a certain amount of fact that goes to explain malformation of excess. It is a known fact that in normal conditions in fecundation, there is but one spermatozoon and one ovum concerned. As soon as the ovum is fecundated by one spermatozoon, it ceases to be permeable by any more. In abnormal conditions more than one spermatozoon may gain entrance. In higher animals this process of course can be watched only after a certain length of time. The progress of the life of the oxyuris megalocephalon has been followed not only from the moment that the ovum was fecundated, but even earlier than that, through its different stages until the ovum was completely developed. It has been followed so often that the rule can be formulated that a healthy one can be fecundated by only one spermatozoon. If it is fecundated by more than one there is malformation in excess; there is more than the normal animal. This partially explains my statement that defects in hygienic conditions were taken as the primary cause in malformations of defect.

Dr. Johnston.—How can you determine the unhealthy ovum?

Dr. Beggs.—I will answer that with the question, How can you determine any unhealthy organ? Only from the study of a complete series. I have not studied the subject sufficiently to know all about it, but when a man devotes his life to one subject he is better able to know all about it than one who has to spread his studies over many branches.

Dr. W. M. McPheeters.—Of course this whole subject opens up a large field. I wish only to say a word with regard to mental impressions. I agree with the gentlemen to a great extent. I know that physiologists and embryologists have to a great extent excluded the operations of the mother's mind on the development of the fetus in utero and I believe that in 99 cases in 100 it may be excluded, yet there are some cases so striking and so well attested that you cannot get over them nor explain them as a mere coincidence. Two or three cases have been reported by my friend Dr. Scott, that cannot be put aside by such an explanation. The idea of mental impression ought as far as possible to be discouraged,

because we know how many instances there in which deformities are looked for by mothers owing to incidents that have taken place during pregnancy, which do not occur. I can however see no reason why such a thing is physiologically impossible. In reference to club foot I believe that the position of the child in utero and the pressure brought to bear on the feet and legs may be such as to arrest development and that in these cases it is the result of pressure on the child, especially where there is but little liquor amnii.

Dr. Meisenbach.—I am sorry that Dr. Borck is possessed with the idea that I can understand his position, because I do not. I believe that he is on the wrong side of the question in regard to the absence of fluid. This question has been veering around to the obstetrical. I don't believe that talipes is due to dry labor; dry labor is labor that takes place where the amniotic fluid escapes a month previous to the confinement and the child comes forth without the lubricating assistance of the fluid. I have had some obstetrical experience, but I have yet to see a case where there was dry labor and also talipes. I believe that the talipes deformities are due to some nervous impression. In all cases of talipes there is a lack of innervation, the nervous system is at fault; there is lack of nutrition of the mnscle as well as the bone. And therefore I still beg to be put down as contradicting his position.

The President.—I would ask if it would not be possible to treat such a case of exomphalus by removal of some of the tissues so as to give greater abdominal capacity for the intestines? The question of Dr. Meisenbach, whether the pressure made might not occasion death to the child, is a serious one. It is also a question whether an operation would not subserve a greater purpose by making a temporary resting place, the more radical operation being performed afterwards when the abdominal walls could be approximated.

Dr. Dorsett.—I explored the cavity and in order to get my finger into it I had to enlarge the openings above and below. I thought of a plastic operation at the time, but I thought it was a desperate case and I concluded to try the expedient of keeping it back for the time being and then performing the plastic operation afterwards, such as taking a piece off the chest and turning it downwards.

As to what part a mechanical injury inflicted on the mother has to do with the condition in the fetus, I know very little. Except that there is one thing that I neglected to speak of in the paper, that when the mother fell from the ladder she alighted on the abdomen, on the very point at which the arrest of development occurred in the child. That happened in her third month. I did not ask her about impression, but I don't believe in mechanical impressions, and this is only one case in which there was injury inflicted on the mother that resulted in injury of the child at the same point that I have seen. I do not try to explain it.

Dr. A. F. Bock.—Pre-sented "A Specimen and History of a Case of Sarcoma of the left lung involving the entire organ, in a child 5 years of age."

Dr. J. C. Mulhall.—Having been associated with Dr. Bock in this case, I would like to say a few words. In regard to the question of diagnosis I differ from the doctor a little, because my impression is, that when we put the aspirator into the chest, the diagnosis was still going on. If there had been no such instrument as an aspirator in the world, I do not think either of us would have made a mistake in the diagnosis. We frequently put in a hypodermic needle as an aid in diagnosis. The efficiency of the aspirating needle in determining the presence or absence of liquid makes one careless in these examinations. I did make a cursory examination of the chest, and I found the ordinary signs of pleural effusion or of pus, flatness all over the chest, the heart could be felt and seen beating on the right side of the sternum. Absence of fremitus, tubular breathing.

Two months before, this child was playing around like other children; it then took a pain in the side and gradual enlargement of pus or fluid, that perhaps led me to make a careless

examination. But now I think of it, after the child was laid on the table one of us made a careful examination and came to the conclusion that there was an encephaloid condition of the lung.

The tumor could be felt under the left false ribs. I remarked that it might be a collection of pus remaining there. Again, there was dilatation of the veins on the left side of the chest, the intercostal spaces did not bulge as a collection of fluid that would push the heart to the right side would lead one to look for. There was marked emaciation, there was no expectoration, and I believe no cough, and very little pain.

Upon reviewing the history very carefully we found that the fever had been intermittent—a tertian ague. The pain in the side was caused by the growth. One curious feature was that notwithstanding the presence of the sarcomatous infiltration of the lung the parietal pleura was entirely healthy.

I don't wish to defend myself in having been careless in the observation, but the history of the thing, the pain in the side of two months duration, etc., it is hard to believe that the sarcoma could so displace the lung that absolutely no trace of lung tissue would be left.

Dr. Meisenbach,—I would like to ask what was the doctor's own opinion in regard to the time of development.

Dr. Mulhall.—I have no opinion. I know very little about sarcoma of the lung. I don't know whether it could absolutely destroy all traces of the lung in two months or not. From the report of a case by Dr. Graves (?) I would conclude that he would believe it possible.

The President.—What was the size of the trochar introduced?

Dr Mulhall.—The largest size of the Dieulafoy's case.

The President.—Did you suppose that the introduction of the trochar was the immediate cause of death?

Dr. Mulhall.—I suggested that we give it a good dose of whisky before the operation but I think it only needed fright to produce asystole. It was extremely weak anyway.

Dr. Beck.—There was no fever or chills during the two weeks in which the child was under my care.

All authors seem to say that these tumors are exceedingly rare and most of them have not seen such cases. Dr. Bremer said that Virchow says that such tumors are an impossibility in the lung because he has not seen them, it is reported.

SELECTIONS.

LAPAROTOMY FOR REDUCTION OF AN INVERTED UTERUS.

BY PAUL F. MUNDE, M. D.

When, a number of years ago, Thomas suggested and in two instances (one successful) carried out the plan of stretching the funnel of an inverted uterus with a glove-stretcher passed through an abdominal incision, the profession could not but admire the boldness and originality of the idea, although it has as yet been slow in adopting and following it. But in those days (not so remote, either) it was considered proper to relegate laparotomy to the place of a last resort, and amputation of the inverted uterus was preferable to the dangerous experiment of attempting to dilate the constricted ring of the organ through an abdominal incision. And surely the choice of the former operation, mutilating as it was, could not be ascribed to its safety, since, out of fifty-eight cases collected by Scanzoni in 1867, eighteen were fatal.

With the comparative absence of danger now attending a septic laparotomy, there seemed a chance for a revival of Thomas' operation in a favorable case. While I had seen, in all, six cases of inversion of the uterus, only two were complete uncomplicated inversions; one of those was in Scanzoni's clinic in 1867, and, in consequence of a doubtful diagnosis, the uterus was ligated and amputated, with a fatal result, the other was

shown me by the late Dr. Dawson in his clinic at the Out-door Department of the New York Woman's Hospital some twelve years ago, and the inversion was subsequently replaced by him, by what method I do not know. The four other cases were partial inversions produced by fibroid polypi, and were easily reduced after removal of the tumor. Thus I had no opportunity to test Thomas's method in a case where a faithful and persistent trial of the usual rapid and gradual means of vaginal reposition had failed, until a few months ago.

M. W., aged twenty-seven years, married, two children, the last three months and a half old, was admitted to my service at Mount Sinai Hospital on May 29, 1888, during my absence from the city. The last confinement had been easy and natural. Particulars could not be obtained as to the placenta and puerperal state. About a month later she consulted Dr. le Nicolai, of Harlem, for persistent hemorrhage, who detected a complete inversion of the uterus, and, as he informed me, made four distinct attempts at reduction of an hour each, twice under chloroform, but without success. The hemorrhage continued, and the patient was sent by Dr. Nicolai to my service. Dr. B. Scharlau, who acted as my substitute during my absence, made two very determined efforts at reduction under chloroform, and, failing, employed steady pressure with an inflated air-bag for three days, until the surface of the inverted uterus became so raw and its tissue so soft as to cause fear of sloughing. Then mild carbolized douches were substituted. On June 6th a third ineffectual attempt at reposition was made under anesthesia.

On my return, two weeks after her admission, I found the excessively anemic and emaciated patient clamoring for relief, no matter how. At the first examination I made a moderate attempt at reduction without anesthesia, merely as a feeler, and easily found the reason of the failure to lie in the great mobility of the completely inverted uterus, and the apparent impossibility to secure sufficient purchase on any part of the uterus so as to be able to press it steadily against the contracted ring. The obstruction was so easy of reach through the thin abdominal walls that it seemed to me, as it had seemed to Dr. Nicolai and Dr. Scharlau, absolutely incomprehensible that it should not be overcome, and I appointed the day for the final trial, with considerable confidence that I should be successful.

However, in case I should fail by the usual methods, I had laid down for myself the following plan of action: Abdominal section, stretching of the inverted ring with a Palmer dilator or a glove-stretcher, and then reinversion by the intravaginal hand. Should this combination fail, as I had no idea it would, then I would resort to removal of the ovaries, closure of the abdominal wound, and elastic ligation of the inverted uterus. I so confidently expected to replace the uterus by manual pressure that I had not provided myself with a glove-stretcher, not happening to find one conveniently at hand.

On June 20th, in the presence of Dr. W. H. Baker, of Boston, and a number of gentlemen attending the Polyclinic, I began the attempt at reduction, the patient being thoroughly relaxed by chloroform. For fully an hour, with alternate hands in the vagina, and applying the pressure at every available spot of the uterine surface, employing the fingers of the other hand and a wooden plug as means of counter-pressure and of dilating the ring, I labored to effect reduction until, from sheer exhaustion, I was obliged to desist. The contracted ring firmly resisted all efforts to dilate it. Further efforts seemed unadvisable, as the uterine tissue had become so soft and pulpy from manipulation and pressure, and the wall at spots appeared so thin, as to render its perforation by the fingers probable.

I could not bear to give up the reduction of the organ at that sitting, and therefore proceeded to carry out my original plan. Rapidly making a two-inch incision through the abdominal wall, I pushed the uterus from the vagina upward so as to almost bring the ring into the wound, and first with my fingers and

then with a Palmer's steel dilator tried to stretch it apart. Failing in this, I sent for a glove-stretcher, and procured two of ivory from the wife of the superintendent of the hospital. These were disinfected, and first one and then both were inserted through the abdominal wound into the uterine ring down to the very bottom of the inverted uterus and gently separated to their utmost. The ring was thus completely dilated and I expected an immediate reduction. But as the glove-stretchers were slowly withdrawn to allow the *pari passu* reposition from the vagina, at the instant the stretchers slipped out of the ring, the latter closed like a vise; and, although the attempt was repeated again and again, no rapidity or concurrence of action in pressing the fundus upward succeeded in anticipating the contraction of the ring. It seems almost incredible that it should have been impossible to so dilate and keep open the ring, when it was not only easily accessible, but even visible at the abdominal incision, as to enable me to slip the fundus back through it. But such was nevertheless the case, and my spectators will, I think, give me credit for having tried faithfully to save this woman's uterus. As a last resort I followed a suggestion of Dr. Lilienthal, my house surgeon, who assisted me (before the operation, while discussing the possible necessities of the case, I had rejected this plan as ingenious, but scarcely likely to be required,) and passed a Peaslee's needle from the vagina through the firmest portion of the fundus uteri and out of the ring and the abdominal wound, attached a long loop of the thickest silk to it, drew the loop out of the vagina, and tied a piece of large, doubled, vulcanized rubber drainage-tube to it, as a fulcrum upon which to exert traction. I chose the flexible tube in preference to a flat button of horn or metal, which were at hand, because I feared the latter might prove an obstacle at the contracted ring. Then dilating the ring with the glove-stretcher, I tried to draw the fundus up through it by making steady traction on the loop of silk. But the pulpy uterine tissue gave way and the drainage-tube suddenly appeared in the abdominal wound. Realizing that this uterus was beyond saving, I quickly removed the drainage-tube and silk loop, pushed the perforated fundus down into the vagina, and tied an elastic ligature tightly about the body of the uterus as near the vaginal vault as I could reach. Having thus sealed off the peritoneal cavity from below, I proceeded to remove both ovaries and tubes in the usual manner, and, after thoroughly cleansing the abdominal cavity with warm Thiersch's solution, closed the wound. The vagina was irrigated with bichloride solution (1 to 5,000) and loosely packed with iodoform gauze.

The operation had lasted an hour and forty minates, the oophorectomy and closure of the abdominal wound occupying but ten minutes. The patient bore the severe handling better than her anemic state would have led one to expect; there was but moderate shock, and no local inflammatory reaction whatever. After the first forty-eight hours, when the iodoform gauze was removed, the vagina was irrigated every three hours with warm Thiersch's solution, bringing away for nearly two weeks quantities for black offensive shreds. The temperature of nine days varied between 101+° and 102+° F., the pulse between 100 and 130 beats; after that both became normal. The frequency of the pulse was no doubt due to the excessive anemia, and the slight rise of temperature to absorption of septic matter from the sloughing uterus by the abraded and torn vagina.

On the thirteenth day I made an examination with the Sims' speculum and found the elastic ligature loose in the vagina, and the body of the uterus entirely absent, the stump of the cervix being almost on a level with the vaginal vault and the cervical canal apparently closed. The abdominal sutures were removed on the ninth day, and a small mural abscess was found which may have caused some of the temperature, for it immediately fell, and remained down.

From that date recovery was uninterrupted, and on the fifteenth day the patient sat up in an easy-chair.

I am thankful that in this case I followed the old rule to "let well enough alone" and did not interfere with the sloughing portion, as is advised by most authors, and as the fear of septic infection might have induced me to do. But more than the danger of septic infection I feared the retraction of the edges of the cervical canal and a communication with the peritoneal cavity. I had once seen this occur after immediate amputation of the inverted uterus after ligation (Scanzoni's case,) and the autopsy showed the gangrenous border of the cervix turned into the peritoneal cavity, and I did not wish to risk a similar occurrence in my case, if the elastic ligature was removed too early or chanced to slip off after amputation of the sloughing uterus. Besides the practical point to be learned from the treatment of the ligated uterus, the chief lesson taught by this case seems to me to be the failure of the effort to dilate the cervical ring through an abdominal incision sufficiently to permit replacement of the fundus. My hopes had been so unbounded in the easy success of Thomas's ingenious plan that I was and still am intensely disappointed at its failure, the more so as I fancy whatever chance it had of being adopted in suitable cases in the future may be shattered thereby.

I am aware that I may be criticised for not having persevered still longer with gradual pressure, and I confess that, had I doubted for a moment that Thomas's method would succeed, I should have felt it my duty to subject the uterus and vagina to still further distention and taxis, which they might ill have borne.—*N. Y. Med. Jour.*

TOXICOLOGICAL EFFECTS OF BORACIC ACID.

BY GEO. T. WELCH, M.D , KEYPORT, N. J.

Boracic acid has become generally known and esteemed in recent years for its antiseptic and germicidal powers, and its application has been extended in various direction to the treatment of diseases, especially those of a suppurative or catarrhal nature, and the drug not limited as to its quantity, under the impression of its harmlessness. I have myself used it in otitis, cystitis, and other chronic inflammations, with decided benefit, and from internal and external use in in various affections, I gradually became accustomed to the opinion that it might be used in even large quantities without detriment, if not always with success. But even water and the atmosphere have their limits when viewed therapeutically in their effects on the human system, and I have found that boracic acid, under certain conditions, is not without its poisonous effect, and have reason to doubt the accuracy of the recent assertion of Gaucher, that "the fatal dose of this drug is two and a half ounces continued for at least 10 days."

I have, since August of 1887, treated five eases of chronic leucorrhea by packing the upper third of the vagina with boracid acid, once or twice a week, tamponing the lower canal, and permitting the mass to remain until liquefaction occurred, on the second or third day, when the tamcon was withdrawn, and a moderately hot douche was used to cleanse the membrane. The curative effect was marked—far more so than when any other means were used. The treatment is not original, though I am not aware of the name of the first operator; nor is it essential, as the same processes in these minor matters doubtless occur to many minds about the same time; but I do not believe that anyone resorting to this means has recorded the same startling experience, in the end, that I have had.

My first case, Mrs. J. A. R———, was put upon this treatment in September of last year, after I had exhausted other means, and her patience as well as my own. She had become the despair of local physicians, and had been under treatment by a noted gynecologist in New York for some weeks, before she came under my care. Her leucorrhea was, perhaps, the most excessive I had even known of, being of a profuse, acrid character, demanding the application of several napkins daily, and causing an intolerable pruritus of the vulva. A chronic cervical endometritis from which she had suffered, had been right skilfully treated by my predecessor without

relieving the leucorrhea, but he had relieved himself by sending her back to the country.

The upper part of the vagina was highly vascular, deeper in color, and copiously exuding its secretion, to the extent of making it very difficult to dry it sufficiently for the application of the boracic acid. But having had the patient already under treatment for five weeks, with douches, astringents, suppositories, tonics, paintings of the membrane with solutions of carbolic acid and of nitrate of silver, tamponing,with various harsh drugs in solution saturating the cotton, etc., I was resolved to give the boracic acid an extended trial. I found it necessary to astringe the mucous membrane with nitrate of iron before it could be dried sufficiently to begin the experiment. The treatment was given on September 4, 11, 13, and 25, and on October 9, 16, and 23, and November 13. Finely pulverized boracic acid was used and it was packed and held in position by a tampon of dry absorbent cotton. The patient withdrew this on third the day, and used a hot douche afterward; on the seventh day the process was repeated. From the very first application the troublesome disease began to abate, and November 13 the last operation was given —the relief being complete before this time for about 15 days, when a slight moisture alarmed the patient, and caused her to send for me again.

I heard nothing further from the case until the 23d, when I received a telegram from her husband asking me to call. The family lived in a village about seven miles from Keyport. I was astonished at finding my patient bolstered in an easy chair, her hands, face, and feet having a charred appearance, as if dipped into some solution of caustic alkali; but her tongue was supple and voluble, and she was fierce in her denunciation of the treatment she had last received, alleging that all her trouble arose from that. As nearly as I could gather, it appeared that on the second day after the treatment there was some feeling of formication in the hands and feet, and later on in the face; the patient became low-spirited, and complained of great depression of the nervous system. There was an acrid escape of liquid from the vagina toward the second night, and the tampon was withdrawn and the douche used. As the days wore on the burning of the skin increased, but particularly that of the face, hands, and feet; the skin swelled, became charred, and all motion was painful. The leucorrhea returned, was copious,, and the eczema of the vulva was intolerable. Loath to believe that the boracic acid had anything to do with her condition, I crossed-examined the patient closely. and got an account of all the details of her life for the two days most in question, but could not learn of anything suspicious in food, drink, or toilet.

She had not sent for me before, because of the hopelessness that had possesed her mind, but had at last yielded to the importunity of her husband. The skin of the worst affected parts subsequently exfoliated and the leucorrhea ceased abruptly without further treatment. I examined the vagina about December 1, and found it in a normal condition. I remained in a perplexed state of mind in regard to the matter until August 15, of this year, when similar phenomena presented themselves in another case similarly treated.

This lady, Mrs. F———, was progressing very favorably indeed, when on August 15 she received treatment with the boracic acid the seventh time. Called to her hastily on the morning of the 17th, I found her in a state of collapse, the pulse barely perceptible, the eyes sunken, the face dusky, and the voice weak and whispering. She was in a low state of mind, had been weeping, and was full of foreboding. She complained of great pain in the vagina and of the corrosive discharge from that part. The hot douche had been used without benefit. I attempted to make a digital examination, but was forced to desist because of the pain it occasioned. I syringed the vagina with a large quantity of warm water, and upon examining, found, that the mucous membrane was eroded, and that a large ball of the acid, too hard to be broken up with the finger, was lying in the fornix. This I removed, as I did two smaller pieces, and by continuing the douche, the vagina was finally cleansed. Oiled cotton was introduced, and the excoirations treated. The temperature was 97.6° F., and the pulse 60, the heart beating feebly, the patient sighing and weeping by turns. Stimulants were used freely with decided benefit—brandy, ammonia, valerian—but it was not until the seventh day afterward that all the sympatoms subsided; the patient being at times cold and hysterical, and especially prone to melancholy. The urine was scanty during this week, and of conrse voided with pain. At the end of this time my attention was called to an ex-

foliation of the skin, which came away in branny scales.

I attempted on two occasions to examine the condition of the vagina with a Sims' speculum, but had to desist on account of the pain caused, and the menses appearing, it was not until September 1 that I could satisfy myself on this point. The mucous membrane had been newly renewed, was dusky in appearance, and the os uteri was in a vivid state of inflammation.

At the time this accident occurred I was treating my fifth case of leucorrhea, in the person of Mrs. J———, with the boracic acid; three cases had been cured, without any return, after several months of the disease, and the present cases had been progressing so well that it was with great regret that I felt obliged to discontinue the use of this drug. Other means failing to alleviate the chronic catarrh, I came to the conclusion that I would use smaller amounts of the acid, and that without packing it firmly as heretofore I would order the tampon withdrawn the following morning and the douche used. Accordingly, I procured a new supply of the acid from another chemist, and made trial with it on September 6. Shakespeare says

"Truth can never be confirmed enough,
Though doubts should never sleep."

But I must confess that I am no longer curious in substantiating the toxicological effect of boracic acid, for 12 hours after the operation I was hastily summoned to my patient whom I found with skin singularly cool, pulse feeble, respiration sighing, eyes sunken and dull, voice whisperihg, and mind unclouded but despondent. I gave stimulants freely; and douched the vagina thoroughly after removing the tampon. There was no corrosion of the membrane here, and the patient at the end of a few hours recovered her normal condition.

I should remark here upon the great coolness of the vagina when first examined, in both these cases. Whers I have used ice in post-partum hemorrhages I have not noticed greater coldness iu the parts than I have experienced here.

The amounts used varied from one to two ounces of the boracic acid, at each operation. In the first ease the average must have been two ounces. When liquefaction began to occur, the escape of the fluid was prevented by the tampon of absorbent cotton, until this was saturated to the point of leakage, which was usually in about 48 hours. The great number of papillæ found in the mucous membrane of the vagina gives a large absorbent surface, which must be very actively engaged, under the circumstances above detailed, and argues a reason why the acid should more profoundly impress the system when lodged here for days, without external escape. Used as a boro-glyceride upon a tampon, the affinity of the glycerine for water would draw upon the resources of the glands, and speedily produce a liquid discharge which would eliminate the acid. But I suspect that large quantities given by the stomach could not escape without some mischief, especially if there was any diseased surface along the course of the intestines.

The symptoms of poisoning by boracic acid resemble those of the caustic and carbonated alkalies. As found in nature boracic acid exists in volcanic regions and is notably obtained from the lagoons in Tuscany, by building basins over the jets of vapor and boiling water which issue with violence from fissures in the earth, the basins being flooded with water from the mountain springs, the boracic acid acid is absorbed as it ascends in the stream, and being drawn off into basins at lower levels, is transferred to shallow tanks for purification. (Bowring). The annual production is about 3,000,000 pounds, and of this crude boracic acid 178,798 pounds were imported to the United States in 1878. Whether it thus passes, to any extent, to the pharmaceutist, I am not able to say, though it is the general impression that the drug, as used in medicine, is first made into borax.and is again obtained from this in hot solution by adding hydrochloric acid, when it crystallizes in white translucent scales. It is soluble in 30 parts of cold water and in three of hot, and is soluble in alcohol, where it burns with a green flame, constituting a test of the presence of boron. Its solution exhibits an acid reaction with litmus paper, yet it turns turmeric paper brown, as do the alkalies. If heated for some time at eighty degree, it loses the elements of a molecule of water, and is converted into metaboric acid; and heated for eight days to about 100 degrees, four molecules unite, with loss of five molecules of water. (Witthaus).

Boron is a most singular element, closely allied to carbon, and when isolated from boracic acid it resembles the diamond in lustre, hardness, and refractive power, and if larger crystals can be prepared it will take rank as one of the most valuable gems. In combination, as borax, it is fatal to the lower animal life, as boron fluoride, it carbonizes organic matter, as does sulphuric acid, and as boracic acid, I think I have shown it is not without its dangers when used in large quantities in the human system.—*Med. Rec.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 22. ST. LOUIS, DECEMBER 1, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

A CASE OF ABSCESS IN RIGHT LUMBAR REGION.

BY E. H. KESSLER, M. D., ST. LOUIS.

Read before the St. Louis Medical Society.

November, 1887, I was called to see Mrs. L., æt. 25 years, married. Found her walking about the room, pale, feverish, no appetite, and constant pain, which she described as beginning in her stomach, running around her abdomen, and stopping in the region of the liver.

The pain would be followed by a swelling in the right side, immediately under the margin of the ribs. The patient could remove the swelling by rubbing. I prescribed for the patient and advised that she should call at my office that I might make a thorough examination. She did not come.

Sept. 6, 1888, I was again called. Found patient in bed; stated that she had been treated by a number of physicians, without benefit. Her expression was one of suffering; skin white and transparent, extremely emaciated; right lower extremity edematous; pulse, 115, temperature, 101° F., respiration good; abdomen to right of median line hard, painful and unsymmetrically enlarged; dulness on percussion on right side from sixth rib to within two inches of anterior spinous process of ileum, laterally from median line to spinal column. Firm percussion at about the junction of right lumbar and right iliac regions produced a slight resonance, as from a deep cavity partially filled. No fluctuation. Examination through vagina revealed nothing. Constant diarrhea, having from four to ten passages daily. Material discharged was of a dark brown color, semi-fluid and sometimes intermixed with blood. One or two passages daily contained shreds or sloughs of different sizes which had a very offensive odor. Urine normal. No diagnosis. Prescribed milk and nourishing broths, with whisky and morphine.

Sept. 7. Consultation with Dr. Gregory. Examination under chloroform, with same results as at previous examination. Ordered 12 leeches applied over seat of pain, followed by hot applications. Also gave calomel 1-10 gr., morphine, 1-8 gr., and quinine 2 gr. every two hours.

Sept. 8. Temperature, 98°, pulse, 108. Respiration good. No pain. Patient slept during night; took three pints of milk and one-half pint of broth. Bowels moved three times.

Sept. 10. Pain returned; pulse 110; temperature 98°; respiration good; took milk freely.

Sept. 23. Dr. Meisenbach examined the patient and he was inclined to believe it a case of tongue formation of the liver downward, as described by Riedel, of Jena.

Stimulants with morphine constituted the treatment. The patient died Oct. 5.

At no time was an operation desirable, there being no urgent symptoms calling for operative interference.

Post mortem 23 hours after death: peritoneum adherent on right side of median line from liver to rim of true pelvis. In left half of abdomen the intestines could be uncoiled. Adhesions binding viscera to the abdominal wall had to be torn. In tearing the adhesions in the right lumbar and inguinal regions, I opened a large cavity, from which I took about three pints of brown thick fluid,

containing pus, blood, sloughs from the ascending colon and liver. In this material was a gritty substance like sand, which undoubtedly was from the liver, as the patient had taken no solids in several weeks.

The cavity extended from the rim of the pelvis, where the peritoneum was adherent, upward to where it met a tongue-like process of the right lobe of the liver. The cavity was in the site of the cecum and ascending colon. The walls were formed laterally and posteriorly by peritoneum adhering to surrounding structures. The anterior and upper walls were formed by the process of liver. No ascending colon or cecum could be recognized, as the walls were entirely destroyed. The calibre of the gut could only be found at the upper left corner of the cavity, corresponding to a place where the transverse colon should begin, and at which place it was adherent to the margin of the abscess in the liver. The opening of the ileum into the cavity was easily found, but to remove any portion of the sac wall with the termination of the ileum was impossible. The pelvic organs were normal; stomach, kidneys and pancreas normal.

The liver, which normally is seldom below the cartilage of the ninth rib, extended by a tongue like process of the right lobe through the right lumbar region. The left lobe, which normally is entirely in the epigastric region, extended over through the left hypochondriac region, where it was firmly adherent to the spleen—so firmly that they could not be separated without tearing their substance. The liver was symmetrically enlarged with the exception of the tongue-like process.

The gall bladder was distended and reached one inch below anterior margin of the liver. The bladder was thick, fibrous and filled with gall stones. Since removing the specimen, I am unable to find an opening into the gall bladder. Is it reasonable to suppose that the repeated passages of gall stones through the cystic duct would cause an inflammation and close up that passage?

Riedel, of Jena, in *Berl. Klin. Woch.* of July 16 and 23, reports ten cases of tongue formation of right lobe of liver downward, dependent upon obliteration of the cystic duct, with distention of the gall bladder.

His operation was to cut down onto the gall bladder and stitch its walls to the peritoneum of the outer opening. After eight days, when adhesions had formed, he opened the bladder and washed it out. Gall stones were present in eight cases, in two cases pus was found. The absence of bile in all cases showed the complete obstruction of the duct. Seven of the patients are well, two are recovering, and one is without benefit.

All the operations were followed by a shrinking and gradual receding of the tongue process to its normal size.

Why an obliterated duct with a distended gall bladder should cause this peculiar growth in the liver remains without an explanation.

DISCUSSION.

Dr. Meisenbach.—It was my fortune to see this case about eight or ten days before the patient's death, and I also had an opportunity to see the post-mortem. The specimen shows incorrectly and only partially what really existed. The whole colon you might imagine as one mass of abscesses; the posterior wall bound completely down to the peritoneum of the abdomen, the lateral walls adherent to portions of the intestine, the anterior wall was friable, and in such a state that it could not be removed, then continuous with lower surface of the liver was a tongue-like projection which had partially ulcerated away, and where the ulceration was still going on: the colon and cecum were very much distended, and I suppose that the diarrhea, which the patient complained of, was pus that passed. When I examined the patient the first time, I could map out this tongue-like projection which you see. The condition of the patient was such as to prevent operative interference, and, as the post-mortem shows, an operation would have been useless.

I think this is one of the conditions that Rider has graphically described. I believe the trouble started in the gall ducts;

probably with obliteration of the cystic duct due to inflammation; the inflammatory process extending to the colon.

Dr. Frank Glasgow.—As Dr. Meisenbach has mentioned one theory to establish the relationship between gallstone and this tongue-shaped projection from the liver, he should also mention the other theory, which is probably the most generally received one—that it is due to the manner of wearing the clothing, forcing the liver down and pressing the margin of the rib into the lobe, thus forming this deformity. I believe the condition is found almost exclusively, if not exclusively, in women. It seems to me very probable that gallstone had nothing to do with this condition. The gall bladder seems all right; there was no local peritonitis around the lower portion of the peritoneum.

Dr. Dalton.—Some time ago Dr. Meisenbach called my attention to Rider's article, and I concluded that I would watch for those cases. I have recently seen two cases that I operated on for cholocystotomy, in which I noticed that tongue-like elongation. In the last case it was on the extreme right portion of the right lobe and extended down to the ileum. It was quite long. Both of my patients were men. In one case there was simply an inflammation of the sac of the gall bladder and a closing of the ducts on account of the inflammation. The sac was extremely thick and held about three ounces of inspissated gall, very black. The patient was very much jaundiced and the stools were very large; his conjunctivæ were very yellow. Since the operation the jaundice has disappeared, and the fistulous opening which was left in the gall bladder at the time of the operation has closed.

Dr. Kessler.—Why the obliteration of the duct and the distention of the gall bladder should cause this peculiar growth cannot be explained. Dr. Glasgow says it is a mere theory. It is not altogether a theory. There is something in it, because after the gall bladder has been opened and washed out this tongue-like process recedes to its normal position, so it must have some direct bearing on the obliteration of the duct.

CASES IN SURGERY.—RUPTURED OVARIAN TUMOR OCCURRING DURING PREGNANCY, SUCCESSFULLY REMOVED.—A CASE IN WHICH TAIT'S KNOT WAS USED.—POLYPOID GROWTHS REMOVED FROM THE NASAL CAVITY.

BY DR. T. F. PREWITT.

Reported at a meeting of the St. Louis Medical Society.

The case from which the specimen that I present was removed, is interesting from the fact that it was complicated with pregnancy. The patient was a woman from Hannibal, Missouri, who came to me on the 4th of September, with a tumor of the pelvis. She was pregnant, in about the seventh month. The character of the tumor was not known. Her attending physician was a very intelligent gentleman. He had seen the patient in June, when she was supposed to be about two months pregnant, and he discovered a tumor in the pelvis, but did not make a distinct diagnosis as to its character. In due time he sent the patient to me with the statement that he presumed she was pregnant and wished to consult me in relation to her condition.

On examination I found the pelvis filled with a tumor, and that the uterus was about the size it should be at the fifth month of pregnancy, but entirely above the brim of the pelvis. The cervix was drawn up until it could be reached only with difficulty—it was up behind the symphysis pubis, the tumor filling the pelvic cavity. I could not palpate by bi-manual examination for the reason that the uterus lay in front and I could not reach the tumor except through the vagina. I was unable for some time to satisfy myself whether it was a solid tumor or tense cyst. Everyone who has examined a tumor of that kind will readily understand that we may have a cyst so tense that unless it is favorably situated we may have great difficulty determining if it is a cyst or solid tumor.

In order to satisfy myself as thoroughly as possible as to the surroundings of the tumor,

(for I did not know whether it was a tumor of the broad ligament or attached to the tissues of the pelvis,) I placed the patient in the knee chest position and endeavored to determine the mobility of it. Upon manipulating and using considerable force I found that the tumor moved a little. I then waited to see if my manipulation would give rise to any disturbance. The patient was very comfortable the next day, and I again made an attempt to move the tumor and succeeded in pushing it a little higher in the pelvis. On the next day I pushed it still higher, up to the brim of the pelvis, carrying the uterus before it to such an extent that it was impossible to reach the cervix; it was entirely above the symphysis and the brim of the pelvis.

On Saturday I concluded I would satisfy myself a little further by an additional examination as far as I could, and in manipulating, with less force, I thought, than I had used before, I felt something give way before my finger. I was satisfied that I had ruptured the cyst, and I felt a good deal of uneasiness about it. I determined to await results, however, and if there were any indications of troublesome reaction to operate early the next morning at the latest, but I found she was all right the next day. She said she had been sick at the stomach, but had no pain, and there was no tenderness. On examining per vaginam, I could feel the outline of the tumor pretty well down in the pelvis and not completely collapsed, but much emptier than it had been, so I felt that I need be in no hurry about operating, inasmuch as no ill results had followed the manipulation.

It then became a question with me as to what I should do. Having determined that the tumor was movable, I had written her physician that there were three courses open to me: one was to operate and remove the tumor, inasmuch as it was pretty evident that she could not be delivered in that condition. The second alternative was to bring on labor and empty the uterus, and I really had some doubt as to whether that could be done, since the tumor occupied so much of the pelvic space. Thirdly, to wait until the last month of pregnancy and do a Cesarean section. This was before I decided what was the character of the tumor. Of course after the collapse occurred, it might be asked why not wait until ill results followed, as we know that tumors of this character when they have ruptured give rise to no trouble. If it had been simply a question of the condition of the patient there would have been no need for hurry, but I did not know whether it was a single or multiple cyst. If it was multilocular the other portion of the cyst would go on enlarging and the same difficulty would have existed, so that she could not have been delivered. She told me that at her previous labor, some 12 or 18 months before, she had a great deal of difficulty; that it had been a protracted labor, although she had borne several children before without trouble, so I thought that perhaps this tumor was present at the time of her previous delivery although it was so small as to escape detection, but had impeded her delivery. So taking everything into consideration I thought best to perform laparotomy, which I did.

On opening the abdominal cavity I found no evidence of peritonitis whatever; no disturbance of the peritoneal surfaces. I drew out the cyst which was attached to the left ovary, with a well defined pedicle, perhaps four inches in breadth, tied it, cut it off and dropped it back. The pelvic cavity was filled with fluid of a ropy character such as we find in these cysts. I could not well remove it nntil I lifted out the uterus, which I turned forward and wrapped in warm towels, and cleared out the pelvic cavity, then replaced the uterus, closed up the wound and the patient recovered with scarcely an untoward symptom. The highest temperature reached was about the twenty-first day when it was 101°. On the thirteenth day she had a temperature of 100°, which was due to something I could not discover. The disturbance on the twenty-first day was due to constipation; it immediately subsided on a free movement of the bowels.

A very interesting feature of this case was the situation of the ovarian tumor. This was the first case in which I had ever seen preg-

nancy associated with an ovarian tumor. I naturally supposed that in a case of that kind the tumor would be on one side, rather to the front, but to my astonishment I found the pregnant uterus above. I do not know what has been the experience of others, as I have not looked up the literature.

Another point of interest was the fact that the fluid of the ovarian cyst gave rise to no disturbance whatever. We all know that cysts of the broad ligament filled with clear limpid fluid may be ruptured or tapped with impunity since the fluid is totally unirritating but this is not presumed to be so in the case of ovarian tumors; in fact, in many ovarian tumors the fluid is of such a character that extravasation into the peritoneal cavity would lead to fatal peritonitis.

In this case pregnancy was not interrupted. She is expecting her confinement in January.

I operated on another case on August 12, for an ovarian cyst. I found there was a well defined pedicle. I cut off the tumor and dropped the pedicle. In that case there was a peculiarity that I was a little puzzled about. In examining the abdomen prior to the operation there was a well defined cyst and below that, between the cyst and the pubes was a fluctuating substance. It did not seem to be ordinary cystic fluid of the abdominal cavity that we sometimes meet with; it seemed to be limited by the pelvic cavity.

When I removed the cyst I found the pelvic cavity filled with ropy fluid which suggested that there had been a rupture of the cyst in that case. In that case there was no evidence that any other cyst existed and ruptured, but the character of the fluid found in the pelvic cavity suggested that such might have been the case. Certainly it had no resemblance to cystic fluid—it was almost identical with the fluid which escaped from this cyst.

Tait's Knot.

I have another interesting case to report, which I operated on. The patient was about 35 or 40 years old, and had an ovarian cyst. I found there was a well defined pedicle, four or five inches in breadth and I tied it with a Tait's knot. On examining the pedicle I found there was a little escape of blood and I tied it with Tait's knot; I also tied three or four vessels separately, but was not content with that and passed a ligature around the whole pedicle and tied it firmly. Now this patient died from hemorrhage from the pedicle. There was very little shock in the case. I saw her at about seven o'clock the next morning, and again at 11 or 12 and she was then doing well. I saw her again at four o'clock, and to my astonishment she was in a state of collapse. I was unable to account for it, and began to think over the possibility of hemorrhage, but knowing that I had taken more than usual precautions, I could not bring myself to think there was hemorrhage. We took every precaution to rally the patient but in vain, she died in a little while. I opened the wound, and to my great mortification found the pelvic cavity filled with blood. On clearing out the blood we found that the knot had permitted the pelvic side of the pedicle to slip out, and quite a large vein was open which was evidently the source of the hemorrhage. Of course, this was a very great source of chagrin to me because there was every reason to suppose the woman would otherwise have recovered. I know of no earthly reason for making this knot, and shall never use it again.

Polypoid Growths.

I have here some polypoid growths of the nose. One of them was removed from a gentleman, æt. 62 years. This growth was in the left nostril and had been noticed for 12 or 18 months before I saw him. Eight or nine months before he came to me some physician had attempted to currette it out, without doing much good, he got out the lower portion and it grew again.

A few months before I saw him he was in Denver, and some physician there tried to cauterize it with nitric acid, but, of course, did very little good because he did not reach the pedicle.

It was not a mucous polypus or a fibroid polypus, and I was satisfied that it was a malignant growth. I thought, at first, I might

make Ferguson's incision, opening the lip and passing up the side of the nose, and possibly turning up the nasal process, and in that way get at the pedicle of the growth without removing the superior maxilla, but after making the incision and carrying it well up and getting at it as well as I could in that direction, I was satisfied the pedicle could not easily be reached in that way. I was desirous of having as thorough a view of the tumor as possible so I resected the upper jaw and found that the tumor grew from the base of the ethmoid cells. In endeavoring to get it off,I broke away a spiculum of bone, which was evidently from the spinous process of the ethmoid bone. I scraped the tumor off as well as I could.

I had a thermo-cautery ready which had worked charmingly a few minutes before the operation, but it refused to work when I wanted it. I then tried to get a plumber's little furnace and hot iron. I had a good deal of difficulty and did not get much cauterization. I was anxious to get off every part of the growth, as I felt sure it was malignant.

When I had cleared off the surface, the cerebro-spinal fluid was trickling away quite lively from this opening. I dressed the wound with iodoform gauze. After the operation the patient had a peculiar condition of prostration; it did not occur to me that it was much like shock; his pulse was exceedingly feeble and slow, not exceeding 50 beats to the minute, yet he was warm, not cold and clammy, his pulse was perfectly regular. I was disposed to account for this condition upon the ground of the escape of this cerebro-spinal fluid affecting the heart's action.

Two or three days after the operation I learned from his physician that he was getting along very nicely. I received a letter somewhat later stating that he was up and about, but there had been a return of the trouble—at least he thought so. The last letter is dated October 24, and in it he says: "I am sorry to inform you that the growth has returned, there is considerable enlargement at the angle of the jaw." Now I thought there was probably a mistake about the growth having returned. The tumor was in the left nares, and there was no enlargement anywhere, at the time, that I could discover. I do not know exactly why there should be an enlargement at the angle of the jaw, and yet it may be that such is the case. I thought, possibly this enlargement might be due to irritation from the wounded tissues. Having resected the upper jaw there might very naturally be enlargement of the lymphatic glands in the neighborhood as the result of the irritation.

The doctor speaks of the patient being out so that the fact of the meninges had been torn through did not prove very serious after all.

I will state that I left the growth at Dr. Bremer's laboratory with a view of having it examined and it was mislaid and could not be found, so that it has never been examined under the microscope, but I have no doubt that it was malignant.

Sarcoma in Nasal Cavity.

I have the specimen from another case of growth in the nose, and it is of some interest. This man came to me with the right nostril filled up with this growth. It had been bleeding profusely upon the slightest touch, the least manipulation caused excessive bleeding until he was afraid to touch it. I examined him and found it exceedingly friable. It was not a case of mucous or fibroid polypus and I thought it was a case of malignant growth.

As I could not get at it, I made an incision from the lower portion of the nares in front of the ala of the nose, carrying it pretty well up and cutting that loose I broke through the nasal process, turned that all out of the way and had a very good view of the tumor. It seemed to be attached to the septum. I found that I could break it all loose with my finger and with a currtte. It crumbled very readily, was very friable. I had examined the posterior nares through the mouth, and although I could not trace the outlines of the tumor as a mass, I felt satisfied that there was something of the same kind of growth. I curetted the whole nose on that side, as well

as I could, and it did seem to extend back to the posterior nares. I curetted the surface from one end to the other. I do not think I left mucous membrane anywhere. I closed up the parts and they looked very well, in fact, the line of incision where the stitches were put in could scarcely be seen. The man went away the second day after the operation, and I have not heard from him since. Dr. Bremer examined the growth and pronounced it sarcoma undergoing degenerative changes.

LEMONS FOR TYPHOID FEVER.—Tourneux, in *La Normandie Medicale*, recommends the following: Three lemons at least, each day, are cut up and macerated in two or three litres of water which has been boiled and allowed to cool; sugar added *ad libitum*, and three ounces of good cognac. After two hours' maceration the lemonade is to be filtered through a fine linen cloth. This is to be given in small amounts whenever the patient is thirsty, so as to keep up an acid reaction in the small intestine.

Besides this, a saline purgative is to be administered: (1) When the temperature rises above the preceding day. (2) When the quantity of the stools or their putridity is increased. (3) When meteorism is present.

The results are said to be very encouraging.—*Med. Times.*

STRANGER (to office boy)—Did you tell the editor there's a man down stairs what wants to knock him down an' drag him out?

Office boy—Yes, sir; an' he says will you kindly step up at once, as he wants to go to dinner.

Stranger (somewhat milder)—Well—er—I—don't want to take no advantage of a man with an empty stomach. Tell him I'll come in again.

WHEN the doctor placed his ear to the editor's heart and sadly muttered: "Poor fellow; circulation almost gone!" he raised himself and gasped: "'Tis false! We have the largest circulation of any paper in the country!" Consistent to the end, he lied as he died.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, DECEMBER 1, 1888.

GENERAL AND LOCAL BLOOD-LETTING.

It has often been predicted that the great panacea(?) for the ills of mankind—blood-letting—that was once so popular, will again come into popular favor, but so far, this prediction has not been verified. The *Ther. Gaz.* says that it is not at all sure that deeper research into physiological and pathological conditions may not in the future prove that the number of cases in which the abstraction of blood would prove beneficial is much more frequent than we now believe. In intense pulmonic congestion, connected with or dependent upon weakness of the right side of the heart; in conditions such as arise in excessively obese persons when the cardiac viscus is overwhelmed with the great mass of blood; in excessive pulmonary hemorrhage, attended with high intra vascular pressure; in apoplexy or brain congestion attended by great arterial excitement, the *Gazette* thinks bleeding is sometimes not resorted to when it should be.

When we remember that patients have been bled a score or more times during an acute illness and still survived, we must conclude that this measure, when used in properly selected cases and in moderation, is not, in itself, a source of great danger. Of course there are conditions that positively prohibit its use. The difficulty found in determining when and to what extent it should be used constitutes the greatest barrier to its again coming into popular favor.

It has long been known that intra vascular

pressure in the cranial, thoracic and abdominal cavities may be greatly lessened by constricting the venous circulation of the arms and legs, thus damming up the blood in the extremeties. The *Gazette* says:

"This suggestion has been acted upon by Dr. E. Haffter (*Wiener Med. Blat.*, Sept. 13, 1888), who states that his sphygmographic studies prove that ligature of both legs reduces the blood-pressure one-half; and who also affirms that during two years of trial he has obtained more excellent results in hyperemia of the lungs, overloading of the heart, and other similar conditions, by the use of the elastic band.

Dr. Haffter cautions against the application of this method in too intense or too weak a degree, and further lays stress on the necessity of a correct diagnosis. He employs black rubber tubing of about the thickness of a lead pencil, applied around one extremity as near as possible to the trunk and tied tightly in a knot. The indications which call for this method of treatment are congestions of the lungs or other internal organs, pulmonary hemorrhage and various heart affections."

Though simple enough in its application, the use of this measure cannot be devoid of danger. The sudden withdrawal of a large amount of blood from the general circulation in this way would produce a no less profound impression on the patient than if drawn in the same length of time by phlebotomy. Again, to remove the ligatures quickly and allow a large volume of blood to be crowded upon the right side of the heart would greatly endanger the patient's life.

Dr. J. Leonard Corning, of New York, has found that old alcoholic subjects, especially those of a plethoric type, can be more readily placed under the influence of ether by first placing ligatures (as above described) around the thighs. He claims that this method has another advantage—should the patient become overpowered by the anesthetic, a removal of the ligatures would quickly dilute the ether-charged blood, thus greatly aiding in the resuscitation of the patient.

In acute local inflammations one of the most potent remedies at our command is local blood-letting. Especially is this true in diseases of the eye and ear. In acute iritis, it matters not from what cause, one or two leeches applied to the temple of the affected side, rarely fails to lessen, and in some cases entirely relieves pain, and causes the pupil to dilate nicely under the use of atropia. In acute inflammations of the middle ear, accompanied by excruciating pain, no other remedy is so efficient as the application of two leeches to the inner surface of the tragus. If the mastoid is tender and red, a couple of leeches applied over this process will often prevent a periostitis.

Ethics in Administrating Anesthetics.

An interesting discussion on this subject took place at the Sydney Branch of the British Medical Association (*Brit. Med. Jour.*) In those cases in which one man gives the anesthetic and another does the operating the president, Dr. Chambers, was not sure as to the exact amount of responsibility that each should take; but the utmost confidence should exist between them.

Dr. Shewen was right when he said that the the responsibility cannot be equally divided between the operator and the administor, but falls wholly upon the latter as soon as the patient is taken in charge. However, the laity do not see it in this light, and in some cases the surgeon bears the greater part of the blame for accidents.

Uuquestionably experience in the administration of an anesthetic is a decided advantage. It was the generally expressed opinion at the meeting referred to, that a special chloroformist should be appointed for each of the public hospitals. This would be a wise precaution, provided it be made the duty of the chloroformist to supervise the administration of the anesthetic and not to give it in each case himself. It would be a fatal mistake to teach the laity that only those who have made this their special business can give anesthetics with comparative safety. In proof of the

fact that accidents may oocur even with the most experienced Mr. Twynam said that Mr. Clover, of London, had administered anesthetics to four thousand patients without a death, and then had two deaths within two weeks.

I have taken occasion before this to express the opinion that no one should essay to give any anesthetic before having studied its effects upon a number of patients under the care of an experienced physician. There is enough uncertainty at all times to justify the operator in having an assistant to give the anesthetic, if one can be had.

The choice of an anesthetic should be agreed upon by the operator and the anesthetist; should there be a difference of opinion between them then the opinion of the latter shonld have precedence.

In writing of a case in which death occurred during the administration of chloroform, the editor of the *Brit. Med. Jour.* says:

"Dr. Robertson does not add any material facts to the report we published last, but confirms the main points upon which we commented, namely, that he, unassisted by any other medical man, undertook to anesthetise and operate upon a patient. The fact that the patient Petch "would not hear" of another medical man being called in to help, simply showed she did not appreciate the gravity of the situation. Dr. Robertson asks was he, telegraphic communication being closed, to refrain from operating in another and urgent case, and the answer is evident. Urgency and inability to procure professional assistance would always exonerate a practitioner from running risks, however undesirable, but we do not gather that, in the patient Petch, there was either urgency or any insuperable difficulty in obtaining assistance from another medical man. We are then confirmed in our opinion that no medical practitioner should nndertake the charge of the anesthetic and of the operation singlehanded. If such a thing be done we cannot accept the statement that "every precaution was taken prior to, and during the administration of the anesthetic."

Some Advantages of Membership in Medical Societies.

There is perhaps no other one thing that conduces so much to the advancement of medical science as does the active working medical society. Now and then we hear it said, "The profession is going wild over medical societies, they are getting to be entirely too numerous." Those who hold this view lose sight of the fact that compulsory attendance upon society meetings is a thing unknown. Every one will admit that it is possible for a physician to devote so much time and attention to society work as to seriously affect his private practice, but a smaller number of patients are lost in this way, than by the stay-at-home plan.

The *Maryland Med. Jour.*, says: "By the thoughtful, live physician, the question 'does it pay to belong to a medical society?' will always be answered in the affirmative." This however is not apparent to many,asthe remuneration, in dollars and cents comes in an indirect way. The journal continues thus:

"The amount of practical information which a physician may gain from the discussions of an active society is beyond all calcution.

Nor does the medical society teach him less about himself. It gives him opportunity to compare himself with his fellows,to silently note the points in which he is deficient. It trains him to greater accuracy in the study of his cases and greater care in their treatment, especially, if from time to time, he brings the more interesting ones among them to the notice of the society.

Here and there may be found an active pushing city practitioner who is a member of no society, but this is a rare exception. Our best workers are society men.

Peritonitis During Gestation.

At a meeting of the Montreal Medico-Chirurgical Society. Dr. Blackader read a report (*Med. News*) of four cases of pregnancy in which peritonitis occurred. In each of two

cases gestation had reached the sixth month; the contents of the uterus were quickly expelled and the patient sank rapidly and died. In another case gestation had reached the eighth month; a living child was born, with scarcely any pain and very rapidly. Two days later the patient died. The fourth case occurred during the seventh month. In this case the peritonitis seemed to be local, though considerable distention and great tenderness of the abdomen occurred, and frequent vomiting. Morphia was given hypodermically, and the symptoms gradually subsided, the patient recovered, and at full term gave birth to a healthy child.

Dr. Blackader could find but four recorded cases similar to those which he reported. In none of the cases was any cause found for the local peritonitis. A striking feature of the fatal cases reported by Dr. Blackader is the precipitate manner in which the uterine contents was expelled.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

In the management of diseases of children nothing is more important than for the physician to gain the confidence of the child. Children like dogs know their friends and unless one has a natural fondness for the little ones he had better not undertake to treat their physical ailments.

On general principles a physician who is not a father is not qualified to properly understand babies no matter how much of a scientist he may be—of course there are exceptions to all rules.

* * *

It is undoubtedly true that in the nasal cavities may lie hidden some of the chief destroyers of the race; "that in the interior of these curled irregular, and mysteriously arranged chambers and their more adjacent cavities, the antra, frontal sinuses and ethmoidal cells, lurk many of the sources of fleshly ills from the myxomatous polyp to the predisposing cause of hay asthma."

With a view to guard against the dire evils of these conditions mothers should be impressed with the importance of not ignoring even the simplest cold in the head of their petted darlings. In the earlier years every cold with a running nose should be watched. A "snotty nose" is not only unesthetic but it may be dangerous to the child as the retained irritating discharges may denude the mucous membrane and furnish an attractive abiding place and port of entry into the blood for the germs of diphtheria, scarlet fever, erysipelas and other infections.

A very simple procedure may, if scrupulously followed with every attack of cold in the head prevent all the dangers which follow neglect, viz., the injecting by means of a weak syringe, into each nostril, the head being thrown backward of liberal quantities of melted vaseline, at proper intervals (two or three times daily). By this means the secretions are prevented from accumulating, decomposing, and further inflaming the surfaces about them; free exit is aided and the engorged membranes are soothed, and tranquillized. Instead of the plain vaseline it may be better to sometimes use either of the following:

℞ Acidi carbolici, - gr. v.
Alumenis sulph., - gr. x.
Vaseline, - - ℥j.
M. Sig. Apply.

℞ Unguent hydrarg. ox. rubr, ℥ss.
Unguent ox. zinc benz., ℥j.
Sig. Apply.

As the child grows older it may be taught to use then unguents whenever necessary by snuffing up through the nostrils free quantities until the same pass through the posterior nares into the throat. If smaller children of the better class were supplied with fewer bows and ribbons and more pockets for the carrying of a handkerchief it would be well.

* * *

In the treatment of intra-nasal hypertrophies and inflammations, which are often the result of repeated colds in the head which have been neglected, Dr. W. H. Daly, of Pittsburgh, the well-known Ex-President of

the Laryngological Section of the Ninth International Congress has been in the habit of freely incising the thickened vascular tissues at intervals of a few days. In some more aggravated cases where there is almost complete stenosis caused solely by a bogging hypertrophy of the soft tissues over the inferior turbinates anteriorly more particularly he cuts off the redundant tissue with angular serrated scissors; after freely bleeding plugging the cavity with a styptic cotton tampon upon a piece of rubber tubing—the latter permitting the passage of air through the nasal passage. In a paper read at a recent meeting of the American Laryngological Association at Washington, Dr. Daly reports a number of cases very successfully relieved by this means.

* * *

The recent death of the only son of Dr. John A. Larrabee, of Louisville, from typhoid fever, was a sad illustration of the futility of earthly hopes. Having passed through all the years of necessary study, a graduate in medicine, on the threshold of the profession, full of enthusiasm, associated in the noble work with a father still young in years, congenial and companionable to him; the two full of of realism and love for their calling and each other—a state of affairs toward which many of us, working single-handed and alone, have looked ever and anon so hopefully and longingly—brightest hopes realized,fondest desires crystallized into a form that would arouse the admiration and appreciation of even the most censorious. The culmination of all—what? Long weeks of suffering and death.

But after all such is life. There is no family and no flock from which there have not been taken loved ones, and at such times words are idle. Let us remember that into each life some rain must fall. To such as have not the comfort of religious consolation there remains at least the solace of philosophy and duty nobly done.

Dr. and Mrs. Larrabee have the warm sympathy of their many friends in the South and West.

The recent death in Georgia on Oct. 21, 1888, of Dr. J. B. Manson, one of the most eminent, skilful and benevolent physicians of that state, at the hands of an infuriated father whose child died from typhoid fever while under the care of Dr. Manson draws attention to one of the many dangers which surround a doctor. Ill balanced minds under the pressure of great grief often unjustly blame the attending physician for the death of their loved one, but, fortunately, it is rare for the result to be so sad as the one above referred to.

We can recall, I doubt not, many instances in our lives when we were in deadly peril.

Some years ago, while attending a patient suffering from acute dysentery, who had been a heavy drinker, delirium tremens developed, and a midnight summons found me in the room of the sick man, defending myself from his murderous efforts with a long carving knife dangerously sharp (he being a butcher). He was a powerfully built man. A valorous discretion, dextrous dodging and agile moving permitted the gain of time and the arrival of a lusty black male nurse. Our combined force disarmed the maniac, and it is needless to say that the patient was securely guarded thereafter.

* * *

It would be superfluous to refer to the duty that the medical man owes to his profession and to the public.

From the days of Hippocrates on down to the present time medical men have been saturated with the self-sacrificing spirit which found expression first in the Hippocratic code, and later more perfectly in our own American medical code of ethics. The profession of medicine had its first corner stone laid upon sentiments of sympathy, humanity, charity and brotherly kindness, and they still form the bulk of the noble and almost perfected superstructure of the present day. Our code of ethics was adopted at the organization of the American Medical Association in 1847. Having been reported to the association by a regularly appointed committee, of which Dr. Isaac Hays was chairman. The

American code is based upon that prepared by a noble English physician, Thos. Percival, for his son who was about to engage in medical practice, but who died before its publication in 1803. It was dedicated to another son who was studying medicine, and in the dedication the writer says that "in its composition his thoughts were directed to his son with the tenderest impulse of paternal love, and not a single moral rule was framed without a secret view to its designation, and an anxious wish that it might influence his future conduct."

As one reads the code through and through he can but be impressed with the thought that its tone is essentially paternal, and the above history explains why the code, while being full of noble and lofty sentiments, is instructive and beneficial to the new candidates for professional honors. But the thought presents itself that more attention is given to the duty of the juniors to the seniors than the seniors to the juniors. A modification of the code might well be adopted, expressive of the duty of those who have long been in the profession treating the fledgelings with a reasonable amount of generosity and kindliness.

* * *

How to discover disease is a problem which the best minds of the profession the world over are working thoroughly in the direction of solving, but we may well propound the query, is the cure of disease receiving sufficient attention at the hands of scientific men?. Unquestionably, the first step in the cure of a disease is to discover its cause, understand it and its expressions, and intelligent effort should be made to cope with it.

The best physician is he who loses no opportunity for clinical investigation, and who can most practically apply the means within his reach for the relief of suffering and the removal of disease.

* * *

At the last meeting of the Medical Press Association of St. Louis, held November 26, 1888, Dr. R. M. King resigned, and by so doing, severs his connection with this journal. It is needless to say that the members of the Association were sorry to lose his valuable service and agreeable companionship.

Dr. King is a conscientious earnest worker in the cause of science, and wherever found will be found doing his duty.

EXTRACTS.

Physiology in the Public Schools.

The readers of the *Century* will remember the very amusing article that appeared about a year ago from the pen of Samuel L.Clemens (Mark Twain), on the answers by public school children to examination questions in the public schools. Several months ago the *Popular Science Monthly*, in commenting on the abuses. educational and otherwise, of the public schools, declared that it was now demonstrated that the public school system should be abolished. In the August number of the *Popular Science Monthly* was an article by "a teacher" on "Physiology in the Public Schools," containing a large number of answers to examination questions. The article shows that physiology is as badly taught in the English as in American public schools, and that the misinformation in regard to the subject of study is due to too much learning by rote without comprehension of the meaning of the terms employed—and to bad teaching; possibly, also, to the fact that children are set at physiological studies at too early an age. And we must agree with what the *Lon. Arch.* says in regard to this matter: "These exercises may be thought amusing, but, it should be borne in mind that every word represents more or less pain to some unhappy child in endeavoring to recall ponderous words which were without meaning. Education in sanitary matters is desirable, but, as it is at present conducted in public shools, it must injure children's minds by habituating them to the use of words which they cannot understand." Certainly, it is a seriour blunder to lumber up the mind of a child with words that carry no meaning. The words of the Wise Man may be applicable here: "In

all thy getting get understanding."—*Jour. Amer. Med. Ass'n.*

[Physiology should have no place in the curriculum of any other than a medical school. It has been truly said: "Happy is the man who does not know that he has a liver or a stomach." One of the most difficult things the physician has in some cases to contend with,is to keep the patient's mind off of himself. It is a well-known fact that medical students have many imaginary diseases while attending medical lectures. The only practical use that the study of physiology can be put to, is as an aid in the study of disease, and the less the laity know of disease the better for them.]

Hygiene of the Eyes.

Dr. Lincoln, of Boston, in the *An. of Hyg.* formulates the following rules to be observed in the care of the eyes for school work:

1. A comfortable temperature, and especially let the feet be warm and dry.
2. Good ventilation.
3. Clothing at the neck loose; the same as regards the rest of the body.
4. Posture erect; never read lying down or stooping.
5. Little study before breakfast or directly after a hearty meal; none at all at twilight or late at night.
6. Great caution about study after recovery from fevers.
7. Light abundant, but not dazzling.
8. Sun not shining on desk or on objects in front of the scholar.
9. Light coming from the left hand, or left and rear, under some circumstances from in front.
10. The book held at right angles to the line of sight, or nearly so.
11. Frequently rest by looking up.
12. Distance of book from the eye about fifteen inches.—*N. O. Med. and Surg. Jour.*

[These are most excellent rules. I know no reason why the light should not be permitted to come from the right hand or right and rear, just as well as from the left. Rule ten is an important one, when the reading is to be continued for some length of time. Most persons hold the book too low.

When the eyes have been used for some hours without interruption they frequently become congested. This is accompanied by a feeling of dryness, and as if something were beneath the upper lids. When this occurs, if the use of the eyes be persisted in,conjunctivitis, of a variety that is extremely difficult to control, will be the result.]

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Nov. 10, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Pritchard, M. D., Secretary.

Ovarian Tumor—Pregnancy.

Dr T. F. Prewitt reported a case of ruptured ovarian tumor, occurring during pregnancy successfully removed. See page 591.

Dr. L. H. Laidley.—I think the doctor was warranted in performing the operation in the case of cystic tumor, complicating pregnancy. Spencer Wells has reported twelve of those cases with the usual results, showing that pregnancy in nowise complicates these cases, and where the removal of the tumor is secured, the desired result follows.

As regards the Tait knot, I used it in one case and found it a failure as far as controlling hemorhage is concerned. I discovered this before I closed the cavity, and withdrew the ligature and used the ordinary chain ligature, and found it controlled the hemorrhage. This is not the first case in which a fatal result has followed the use of the knot.

Dr. Dorsett.—I remember a case that I saw four or five months ago in which the tumor could easily be distinguished with one finger in the rectum and another in the vagina. It occupied the space between the upper portion of the vagina and the rectum. This case went to full term and the patient was delivered of a healthy child. When labor came on the uterus came down and the tumor went up.

Dr. Laidley.—Dr. Ramey operated on a case four or five years ago to remove a multilocular sac. Nothing was said of the condition of the uterus or its contents. Three days afterward the patient miscarried at the third or fourth month and the child and mother both perished. A suit for malpractice was threatened, and I had something to do with persuading them not to bring the suit.

Dr. Prewitt.—I will simply say in regard to the remarks made by Dr. Dorsett that my experience has been that two bodies can not occupy the same space at the same time, and and I am very sure that if labor had come on at full term in this case, the uterus could not have passed down beside this tumor and pushed it up. It was perfectly evident that the child never could be born with that tumor in the pelvic cavity, in fact I doubt exceedingly whether it could have been born at that time, in the fifth month.

Nasal Polypi.

Dr. A. D. Williams.—I operated on a middle-aged man who had one side of his nose filled by four tumors which grew from a pedicle that was attached to the posterior extremity of the inferior turbinated bone. I found that two of these tumors were firm-walled cysts. I could pull upon them so that the teeth of the forceps would cut through the membrane and the fluid would escape and the cyst collapse, but by the next morning the cyst would be reformed.

The other two tumors were ordinary soft, red, mulberry polypi.

I succeeded in locating the pedicle exactly. I took an ordinary knitting-needle, and bent it so as to make a hook as large as I could pass into the nose. With this hook I succeeded in removing the pedicle with its roots. I then cauterized the place where the pedicle came from, with chromic acid.

Dr. Mulhall.—It is a very difficult matter to make a diagnosis of the nature of a growth in the nose. I had an illustration of this lately, in a case in which there was a red fleshy growth filling both nares. For two years there had been numerous hemorrhages from the nose. I was quite sure I had to deal with a sarcoma, but took the precaution of taking a wire snare and securing a piece sufficiently large for the purpose of a microscopical examination, and submitted it to Dr. Alt, and his report was that it was a double angioma. There is no case on record so far as I know of a double angioma of the nose. I am treating it now with the galvano-caustic.

And in the second case of nasal tumor reported by Dr. Prewitt, I think it could have been removed through the natural passages. In proof of the latter assertion I will say that in a case which was much more formidable, where the fibroids took their rise in the vault of the pharynx and involved the nasal uavity so as to push out the nasal bones, in a condition for which formerly a disfiguring operation was done, Dr. Rufus, of New York City, made quite a reputation in the removal of the growths by the skilful applications of the galvano-cautery and electrolysis. He has invented instruments especially intended to protect the soft parts from injury. He has radically cured seven cases of extensive fibrous polypi of the nose. This is a great deal to say of any surgeon.

Many cases have been followed by death from shock, and rapid recurrence has been the result in many where the patients survived the operation. In the case of the patient in which the tumor involved the vault of the pharynx and also the nasal cavity, the use of the galvano-cantery was persisted in for six months. I think it would have been possible to have removed the growth in Dr. Prewitt's case in the same way.

Dr. Prewitt.—I would like to ask Dr. Mulhall if he thinks he could have removed the tumor in the first case by any sort of galvanic process?

Dr. Mulhall.—No, sir.

Dr. Prewitt.—In the first case I will say that as two attempts had been made to remove the growth, one by curetting and the other by the application of caustic of some sort, both doing no good whatever, I became perfectly satisfied that I could not treat it properly without resecting the jaw. I felt satisfied that if I could cure the patient by

the loss of his upper jaw, he would be well compensated for the loss. I do not know whether I removed the whole of the growth or not, but at all events it does not seem to have returned at the place from which it was removed, but at the angle of the jaw, probably in the lymphatic glands. We could not have anticipated any involvement of the glands beforehand, for so far as I could determine there was no involvemnt at the time I operated.

In regard to the second case, I will say that the operation will not be a disfiguring one. I venture to say that six months from now Dr. Mulhall could not, without a close inspection, tell on which side the operation was done. The parts were brought together so accurately that you could scarcely see the line.

MECKEL'S DIVERTICULUM.

DR. H. C. DALTON.—I present to-night a very interesting and extremely rare specimen of small intestine, containing the unique appendage known as Meckel's diverticulum, so called because Meckel first described it.

It is said to be due to imperfect obliteration of the vitelline or umbilical duct, which is sometimes found in the fetus, extending from the small intestine to the umbilicus. This duct has been known to remain pervious after birth. Treves reports two cases of the kind, one in a boy 17 years of age, another in an infant a few weeks old. In both cases the feces passed through the duct and out at the umbilicus. Upon the infant he performed a plastic operation, closing the umbilical fistula.

This condition usually exists as a blind tube leading out from the ileum. It is generally smaller than the intestine proper, larger at its junction with the intestine gradually decreasing to the free extremity which is conical. In this case you will observe that the process is almost as large as the intestine, and is almost one size throughout. It looks very much like the finger of a very large glove. It is composed of the same layers as the intestine.

In some cases the muscular coat at its free extremity is deficient, or lacking, when a hernia of the mucous membrane takes place under the peritoneal coat, giving rise to what is termed the club shaped variety.

Cazin has described a Peyer's patch and Lieberkuhn's follicles in the process. He and Meckel have both noted a valve at its junction with the intestine. They are usually found in the small intestine from one to three feet above the cecum, occasionally as high up as the middle of the ileum.

This specimen was found in the ileum six feet from the cecum, overlying the intestine and immediately underneath the abdominal wall parallel to the linea alba, its free extremity pointing towards the pubes.

While they generally do no harm, they sometimes give rise to pathological conditions. For instance a foreign body or a hardened fecal concretion might lodge in them, producing inflammation, ulceration and perforative peritonitis, just as we have it in the appendix vermiformis. Then again it may become twisted around an intestinal coil producing obstruction, or if sufficiently long it may become tied in a knot through the loop of which a coil of small intestine may become strangulated; in very rare cases it has been known to assume a figure of eight through each loop of which small intestine has been strangulated; it may slip into itself and pass on into the intestine producing intussusception, or for some cause traction may be made on it producing kinking at its junction with the intestine, and obliteration of the lumen of the gut, and consequent strangulation; its free extremity may become attached to any portion 'of the peritoneal surface, usually the omentum, under the arch of which the intestine may become strangulated.

Littre, Meckel and others, have reported cases where the process has appeared in a scrotal hernia producing intestinal obstruction. It usually passes off from the gut at a right angle, occasionally at an acute angle. It has no mesenteric attachment. Sometimes they are provided with a scanty mesentery.

False diverticula are mentioned. These

sometimes exist in great numbers. They are usually found in old poeple who have been constipated. They are pouchlike in shape and spring from the intestine, usually the large intestine at its junction with the mesentery growing between the two layers of the mesentery. They are really hernias of the mucous membrane through the muscular coat. They are composed of mucous membrane and peritoneal coat, though lacking the muscular coat as in the true diverticulum.

Foreign bodies and hardened fecal concretions lodge in them, giving rise to the same pathological conditions as mentioned before.

Treves speaks of a false diverticulum in the sigmoid flexure which, by pressing upon the bladder produced inflammation and ulceration of the bladder, feces passing out of the bladder and urine from the rectum. False diverticula never produce intestinal obstruction.

Dr. F. J. Lutz.—Some time ago I had occasion to perform laparotomy for intestinal obstruction in a man who, on a former occasion, perhaps a year before, suffered from symptoms of intestinal obstruction, and he claims that at that time he had stercoraceous vomiting. I saw him the first time at night, at about eight o'clock. He was then vomiting stercoraceous matter; there was tenderness of the abdomen, etc. He had not had a passage for four or five days, and I suggested laparotomy. The patient at that time was in a bad condition, and in addition he had to be transported to the hospital, some distance away, as his surroundings were such that it was deemed best not to operate at his home. I opened the abdomen and found a diverticulum which had become turned around the bowel, pulling the gut together, completely obstructing it. The patient succumbed.

Dr. J. R. Lemen.—Dr. Hamilton, of London, recently reported two cases (see Review, Oct. 27) in which there was obstruction of the bowel by Meckel's diverticulum. One was attached to the abdominal wall and the other was a twist, something like that mentioned by Dr. Lutz. In one case the doctor operated early and the child got well; in the other the operation was deferred for six or seven days, and there was perforation and the child died.

Acute Yellow Atrophy of the Liver.

Dr. L. H. Laidley.—I will report a case from which we have some specimens, which will be demonstrated by Dr. Babcock, who made the post-mortem.

The patient was 26 years old, the mother of five children, and had had poor health during the period of her last pregnancy. She suffered after a previous delivery, having laceration of the neck of the uterus, which was sewed up and her health improved very much and she became pregnant again.

I did not see her until the day before she was confined. At that time the patient was very weak, and one symptom was a general discoloration of the skin and the tissues of the body by bile pigment. She complained that she could keep nothing on her stomach. I examined the urine and found a slight trace of albumen and found secretion of bile in the urine. The following day I was called to see her and she was delivered speedily, having only one or two pains. I gave tincture of digitalis and milk peptonized in order to facilitate its digestion.

She continued in a weakened condition. The uterus cleared itself of the lochia very nicely but on the third day she died. She had a very weak pulse both before and after delivery; the pupils were contracted a short time after the birth of the child; there was a good deal of hebetude. She could be aroused from the stupor, but did not notice persons; she would answer questions rather indistinctly. I requested Dr. Babcock to make a post mortem, and he will tell you what was the result of his examination.

Dr. Babcock.—The body was of a light lemon color; it was not much emaciated; there was slight edema of the feet and hands, and several ecchymosed spots on the legs and arms and several bullæ, as large as a quarter of a dollar.

A part of the peritoneum was very pale. The liver, which was the seat of the trouble, presents all the physical signs, as well as mi-

croscopical, of acute atrophy. Instead of weighing from 50 to 60 ounces, as it ordinarily does, it weighs 26, together with the head of the pancreas; the liver alone would weigh perhaps twenty ounces. The capsule is very adherent to the surface of the liver; it is entirely broken down so that the liver cells can hardly be recognized.

The heart is fatty and there is considerable thickening and adhesion of one of the mitral valves to the heart wall, producing incompetency.

The uterus was very large. There was no blood in it.

The post-mortem was characterized by extreme bloodlessness. Everybody who has made a post-mortem knows that usually the cavity of the liver contains a teacupful of blood. In this case there was not more than a tablespoonful. The important veins were empty, and there was no hemorrhage when I removed the heart.

The kidneys are in a state of fatty degeneration.

I found upon examing the authorities that this trouble which, of course, is rare, is usually considered to be due to phosphorus poisoning and pregnancy, and the age at which it usually occurs is between 20 and 30, over two-thirds of the cases of so-called idiopathic yellow atrophy of the liver occurring in females between 20 and 30, and due to pregnancy, which seems to have been the cause in this case.

There was no obstruction of the gall duct, it being open down to and through the duodenum. The gall bladder was filled with a grayish material, not bilious in character to any extent; there was none of the bilious stain at the hepatic flexure of the colon which is almost always present.

Dr. Laidley.—The patient stated that the bilious condition began some six weeks previous to the time I saw her.

Dr. Babcock.—The patient never suffered any severe pain in the right hypochondrium; she complained of no debility except a great deal of nausea, inability to retain food in the stomach. She did not complain of pain following the delivery of the child; there was a little tenderness on pressure in the region of the uterus.

Dr. Prewitt.—I would like to ask Dr. Babcock how he explains the fact that this trouble occurs from pregnancy and between the age of 20 and 30.

Dr. Babcock.—I find that fact mentioned in all the works, that it is caused by pregnancy and occurs most frequently between the ages of 20 and 30; no reason is given for it. Various causes are given for the trouble, such as shock, fear, great fright, excessive venery, syphilitic infection, etc.

CORRESPONDENCE.

TOOTH EXTRACTED—SEPTICEMIA—DEATH.

Concordia, Kas., Oct. 15, 1888.

Mr. C. M. P., æt. 38, a prominent citizen of Concordia, had a right upper molar tooth extracted on Saturday. Weather was chilly and he took cold in his jaw. He called in a homeopathic physician on Tuesday. The patient had a temperature of 101° to 103° during the remainder of the week. I visited him as a friend for the first time on Sunday evening. Pulse 108, temperature, 103°; tongue coated, headache, jaw greatly swollen. He had chilled three times. I diagnosed suppuration of the parotid gland. These symptoms were worse on Monday. On Tuesday morning I saw the patient in consultation with attending physician and Dr. Fairchild. The parotid gland had burst on the inside, and from four to six ounces of pus came away.

Quin. sulphatis grs. xxiv and tr. ferri mur. ʒi were administered daily, brandy was pushed and an antiseptic spray used. I advised opening the gland on the outside, but action was not taken till 18 hours later. Rigors and profuse sweats continued during Tuesday and part of Wednesday. Death closed the scene Wednesday evening at 8:30 p. m.

J. H. M. Casey, M. D.

SELECTIONS.

ACUTE INTESTINAL OBSTUCTION; ABDOMINAL SECTION; RECOVERY; REMARKS.

On the evening of Monday, July 30th, Mr. Owen was called in consultation to the wife of a small shopkeeper, in her fiftieth year, who since the previous morning had been vomiting incessantly. On the evening of Saturday (28th) she had, according to her custom, taken some purgative medicine, and in the morning of the Sunday had been seized with such severe abdominal pains that, on getting out of bed to pass a motion, she had fainted and fallen upon the floor. After this, vomiting set in, and continued throughout the whole of Sunday and Monday. When Mr. Owen saw her (on the Monday night) she was sick every ten minutes, and was complaining of great pain across the umbilical region, but she did not show much sign of collapse. On making a careful examination of the surface of the abdomen, a small irreducible femoral hernia was found upon the left side. It had existed for many years, and on this occasion was so quiet and free from tenderness that it appeared unlikely that it could be the cause of her present distress. It was agreed, however, to cut down upon it there and then, and that, if it were found of no material import, and if the symptoms persisted after the herniotomy, the patient should be sent into St. Mary's Hospital next morning for abdominal section, so serious an operation being quite impracticable in her own house. * * * * The hernia proved to be a mass of omentum, which, being somewhat adherent to the sac, was carefully separated and returned into the peritoneal cavity. Next morning the patient was no better; so Mr. Bligh Wall, under whose care she was, persuaded her to come into the hospital.

On Tuesday (31st), at 2 P. M., she was taken into the theatre, and after a brief consultation, it was unanimously agreed to open the abdomen. Even at this time she did not show much collapse, but her abdomen was enlarged, tympanitic, and tender, and she was vomiting constantly.

Operation.—A five inch incision was made in the linea alba, and on opening the peritoneum about half a pint of dark sherry-colored serum escaped. The small intestine was purple, and on lifting up some greatly distended coils a pale and collapsed piece was discovered, and a firm band of omentum was found compressing, and obliterating the lumen of the bowel. A few inches distant up the dilated piece of intestine was a ring-like constriction, which had evidently been caused by a previous and long-continued pressure by the same band. There were no signs of recent strangulation at that constriction, however, and the conclusion drawn was that that piece of the bowel had become accustomed to the pressure of the omental band, but that a sudden slipping of the intestine—perhaps the result of the purgation—had brought a fresh piece within its grasp, which had promptly become strangulated. It may not improbably have been the old-standing compression that caused the woman to resort to the weekly purgation. The omental band was about one eighth of an inch wide, and the piece of bowel across which it lay gave ample evidence of the urgency of of the need for its division. The band being torn across by the fingers, the intestine was at once free. The piece of omentum which had been returned from the femoral sac was seen in the left inguinal region, and, as it looked swollen and ragged, it was ligatured and removed. The peritoneal cavity was not washed out; the abdominal wound was closed by silk sutures, which passed deeply through the serous lining and kept the sides of the peritoneal incision in accurate apposition. The dressings consisted of boracic acid powder and pads of wood-wool, under a binder.

After being put back to bed the patient had no more sickness, and on the following day a little milk was allowed with iced water, which she kept down; and on the second day after the operation she took small quantities of peptonised beef and milk. The temperature remained under 100° F. She was pass-

ing a good deal of flatus per anum. At the end of a week the bowels were relieved by an enema, and the wound was dressed for the first time. The femoral wound healed by first intention, as did also the abdominal wound, with the exception of the lower end, from which there was a good deal of discharge for some days during the second week. Towards the end of September the woman left the hospital, well, and rapidly regaining her strength.

Remarks by Mr. Owen.—The coexistence of the irreducible femoral hernia with the internal strangulation is an interesting rather than an important feature of the case. The absence of local tenderness about the hernia could not be taken as evidence that the acute symptoms were not dependent upon it; the only thing to be done was to cut down and explore. Had the patient's surroundings been more favorable, the abdomen would probably have been opened as soon as the hernial wound had been explored. As it was, there was a delay of sixteen hours before the laparotomy could be undertaken. This loss of time was much regretted, but it could not be avoided; on her coming into the hospital the the operation was undertaken without a moment's delay. Certainly if it had not been done the woman must have died, for the rigid band was deeply embedded in the dark and swollen bowel, and ulceration must have occurred very shortly. This report affords further evidence of the value of early exploratory incision in the case of acute intestinal obstruction. Clinical experience gives almost daily testimony to the fact that a clean incision into the abdominal cavity is not in itself accompanied with much danger, though, of course, when a prolonged search has to be made behind dilated coils of intestine the out-look becomes more grave. One of the most distressing revelations of the post-mortem room is the demonstration of an acute internal strangulation, which, though suspecting it during life, the surgeon has not the opportunity of relieving; but more poignant still is the regret felt by the surgeon who, obtaining the tardy sarction to explore the abdomen, finds the strangled bowel damaged almost beyond the prospect of recovery.—*Lancet.*

THE DETERMINING CAUSES OF SEX.

A Paris corespondent to the *N. Y. Med. Jour.*, writes Professor (*agrege*) Charpentier, at a subsequent session of the Academy, made a communication upon the causes that determine sex. He first said that but little was certainly known about the matter up to the present day, but that some few facts seemed to be established almost beyond doubt. One of these was that the absolute or relative age of the parents had a real influence in producing a certain sex in the embryo. For instance; when a man was 10 years older than his wife, while she was still in the active period of production, there would be more boys than girls born to them. Another point which seemed to be established was that that one of the couple who had the most energy decided the sex of the child. Furthermore, that if coition was practiced some time after menstruation (at least eight days) a male child would result. Bidder after examining the records of some 12,000 births, had come to the following conclusions on this subject: 1. That very young primiparæ might be expected to have mostly boys. 2. That a primipara of middle age would be more apt to have girls. 3. That a primipara after the middle period of life would have more boys. The multiparæ follow the same rule, but ceased to have boys sooner. In a word, the sex came from the male or female quality of the ovum; the male ones were most likely to be fecundated in youth; afterward, during the fullest activity of the woman's sexual life, the female eggs were most numerous and most likely to produce; and this became less and less probable as time went on, when the male element or tendency again predominated. While upon this subject, it may be well to give Dr. Charpentier's good advice to physicians as to the most prudent answer to be given when they are asked what they think the sex of the child is going to be. He suggests that they should reply to this impor-

question by asking the mother what sex she would prefer in the child, and then giving it as his opinion that the opposite sex is the one to be looked for. In this way, if the sex turns out to be the one which he has prognosticated, he will be thought to be a wonderful man, while if it proves to be the one which the mother has wished for, she will be so pleased that she will easily overlook the error made by the doctor.

AN ICONOCLAST.

That veteran laparotomist, Dr. Walter F. Atlee, has lately (*Pitts. Med. Rev.*) been freeing his mind on several points, and to very good purpose.

For several years it has been a favorite "fad" with laparotomists that cases could be properly treated only in special hospitals; and each operator's ambition has been to reach a point where he could condescendingly refer; in his writings, to "my hospital." Such hospital has been not infrequently of far from imposing appearance, and of insalubrious surroundings, but it has possessed the glamour of individuality, and that is sufficient.

Comparing such hospital with home treatment, Dr. Atlee says:

"I wrote some years ago that I would not operate upon a case unless I could attend personally to the subsequent treatment (see *Amer. Jour. of the Med. Sci.* for January, 1888). I am convinced, however, by the success of operations performed upon patients too weak and too unwieldy to be transported, that this was an error. I believe now that home is the best place for the patient, under almost any circumstances.

"Traveling in such cases is exceedingly fatiguing, physically, and the effect, morally, of leaving home and its surroundings, with a dread of never again returning, is very depressing. I am confident of this, that many patients have recovered when operated upon in their homes, in distant places, who would not have recovered if brought here; and that some have died when subjected to the fatigue of the journey; and the distress of leaving their homes, who would have recovered had I gone to them."

Concerning the time for operating on ovarian tumors, he agrees with Spencer Wells in saying:

"So long as an ovarian tumor does not materially interfere with the appearance, prospects or comfort of the patient; so long as no injurious pressure is exerted by it on the organs of the pelvis, abdomen and chest; so long as heart and lungs, digestive organs, kidneys, bladder and rectum perform their functions without much disturbance; so long as there is no great emaciation, no very wearying pain, no distressing difficulty in locomotion; or so long as any injurious influence can be counteracted by ordinary medical care, the patient should be left to this care, undisturbed by any surgical treatment."

As to operations for the removal of fibrous tumors of the womb, he says he has refused always to perform them.

"When I have operated, it was because I made a mistake in my diagnosis. In these few instances the patients fortunately recovered. I would like here to recall what Dr. Keith has written recently of such operations: 'I say it deliberately, hysterectomy is an operation that has done more harm than good. One out of every four women operated on by hysterectomy has till now died after an operation for the removal of a tumor that has, as a rule, a limited existence, and that, of itself, rarely shortens life. We have no right to rush our patients into such a fearful risk, yet this is done every day. In abdominal surgery, responsibility seems to have become old-fashioned and gone out of date.' "

Finally, he comes to consider the matter of lacerations of the cervix:

"Some thirty years ago my old master, Nelaton, told me that certain diseases of the neck of the womb were *le paturage des charlatans.* Since then this pasture ground has become much more extensive; it extends to the womb itself and to all its appendages, and many grow fat therefrom, to whom we dare not apply the epithet of charlatan.

"In medical journals a few weeks ago I read

that Noeggerath recommends that tears in the neck of the womb should be left alone. He says that they have no influence on the development of uterine disease, either as to intensity or frequency, and that diseases of the tissues of the cervix are not more frequent in lacerated than in uninjured cervices. My father, Dr. Atlee, of Lancaster, practiced medicine some sixty-five years; he attended himself 3,264 women in child-birth, and had a very extended practice as a consultant in affections of the female genital organs. Shortly before his death, after I had been in practice some thirty-five years, he asked me if I had ever found it advisable to sew up the neck of the womb for a tear. My answer was, No. Nor have I, said my father. Sixty-five years and thirty-five, or a whole century of active professional work, and not one case where it was thought advisable to perform this operation. And, more than that, not one case where there was any reason to regret its not having been performed.

"Mankind are, indeed, fearfully at the mercy of practitioners of medicine. How necessary it is that those who become such should recognize that they are undertaking high responsibilities and difficult duties. A celebrated author wrote many years ago that the physician without a conscience was as much to be dreaded as a highway robber. It may be that he is more to be dreaded; the highway robber says, 'Your money or your life,' and the other may take both."—*Columbus Med. Jour.*

A LAY VIEW OF THE MACKENZIE CONTROVERSY.

What the "outside world" thinks of the ever-recurring squabbles and disgraceful disputes of physicians is so well known as to be proverbial. In the case of the late German Emperor, many, if not most, opinions have been formed and expressed on national and political grounds rather than on the clearly understood merits of the case. The Teutonic press, even in our own country, has naturally sided with the German physicians, whereas the Anglo-American journals have taken up the cudgels in behalf of the British specialist.

A noteworthy exception to this rule occurs in a recent issue of the *Illinois Staats Zeitung*, the leading German daily of the West. The German editor of this influential journal openly sides with Mackenzie, for reasons which will appeal to all who have a heart as well as a head.

"For the layman" the journal says, "this controversy appears in a very simple form. Granted that the German physicians understood the nature of the malady better than the English doctor, could they guarantee to their patient a complete recovery, or give him a longer lease of life than Mackenzie did? That alone was the question which confronted the wife of the patient, denounced and insulted by German hirelings as the 'Englishwoman,' despite the fact of her being the daughter of a German prince."

It was for the woman, who loved her sick husband, to decide, for the woman, who wished to see his life prolonged, to choose between a plan of treatment that gave her grateful hope and another plan which, in a strictly scientific way, perhaps, but at the same time with brutally cruel frankness, thrust a decisive "either—or" upon her. What wonder then, that, like every true German woman—like any loving wife would have done, she chose the former alternative, *i. e.*, Mackenzie. She could not view things from the stand-point of the surgeon, who may congratulate himself on the successful accomplishment of a brilliant operation, while he has but a passing shrug of the shoulders for the unfortunate circumstance of the patient's early death. The supreme wish of the wife was to see her husband's life spared, to nurse him faithfully with unflagging courage to the bitter end, to be to him as he shortly before his death called her, his tireless "maid of all work." The wife had no concern for the glory of German science, for the great fame of distinguished savants. As long as an English "charlatan, humbug, imbecile, swindler," etc., as he has been dubbed by royal-imperial permission, extended to her the one hope of preserving for at least a few months longer

the life of the father of her children, so long would she accept his less heroic treatment for the uncertain chance of a formidable surgical interference. So much for the layman's reasonings.

Though we, as physicians, are apt to pay little heed to the judgment of the lay world, far as medical problems are concerned, it is never harmful to see ourselves as others see us. We will do well to occasionally try to put ourselves in others' shoes. We all have our lessons to learn. The German can doubtless teach us much in the way of abstract science; and it is quite possible that we can teach him a little something in the direction of the *suaviter in modo.* One thing is certain —it is never out of place to have a humane appreciation of the fact that, besides being objects of pathological inquiry, the sick are also subjects with feelings that have no relation to physical laws and the material world. —*Med. Rec.*

A DEFECT IN MODERN SURGERY.

The paper by Dr. David W. Cheever, of Boston, on "Shock," of which we gave an abstract in our report of the Congress of American Physicians and Surgeons, brings up a point which deserves much more than casual attention.

Dr. Cheever shows that modern operative methods, though so much superior to the old ones in most respects, yet tend to cause secondary shock. As he puts it:

"Anesthetics annul pain, but end in nausea.

"Operations under anesthetics are needlessly prolonged and exhausting.

"Modern dresings are tedious and chilling.

"Pain and bleeding are less. Slow cutting, nausea, exposure, low temperature are more. Primary shock is diminished; secondary shock is increased."

Patients are frequently from one and a half to two hours ou the operating table, and three hours more in recovering consciousness. Operations of secondary magnitude are sometimes made so long that the patient dies from shock.

Patients are not given food before an operation to prevent nausea, and they often cannot retain food after an operation for a long time on account of nausea. Here, then, is another defect in modern surgical practice. Lowering of temperature is another thing which occurs after operations. The thermometer frequently falls to 96° or 97° F., and may reach as low as 95° F.

The modern surgical toilet of wounds is depressing, exhausting, devitalizing.

Finally, nausea and vomiting are still present in modern surgery, and are often dangerous indications of depressed vitality.

It is very evident that modern surgery is not yet a perfect art, and Dr. Cheever's paper calls attention to the fact that all is by no means done when perfect asepsis is secured, or wound infection prevented.

The practical directions given for the purpose of lessening the element of shock are these:

1. Wait for reaction.
2. Never neglect to calm those suffering mental shock by a cheerful word and personal presence.
3. Give alcohol, either spirits or wine, a quarter of an hour before the anesthetic.
4. Make the anesthesia short; never begin it until everything is ready; suspend it during the less painful dressings. Consciousness returns tardily. We keep up the anesthetic longer than is necessary.
5. As rapid an operation as can prudently be done.
6. As short a dressing as is practicable.
7. As a cardinal point, avoid chilling the patient.

To promote reaction after the operation:

1. Persistent and carefully applied dry heat. (Be overcareful about accidental burns.)
2. Liquid nourishment, combined with a stimulant and a little laudanum, by enema.
3. Subcutaneous injection of brandy.
4. Aromatic spirits of ammonia by the mouth. Champagne is sometimes retained when other things are rejected.
5. Black coffee and brandy, the stimulant

par excellence, when it can be retained on the stomach.

6. Quiet; a horizontal, or more than horizontal, position; sleep; assurance that all is over and doing well.—*Ed. Med. Rec.*.

A DANGER EROM PERITONEAL IRRITATION.

At a recent meeting of the Paris Obstetrical and Gynecological Socitey, Dr. Polaillon presented the case of a woman who had died on the table after the performance of ovariotomy. As there had been free hemorrhage from severed omentum and pelvic adhesions, the peritoneum was irrigated with about three pints of a one per cent solution of carbolic acid in boiled distilled water of a temperature of about 98. 6° F. The process occupied between two or three minutes, at the end of which time the breathing suddenly became accelerated. It then grew feeble and ceased the face becoming violaceous, but the heart continued to beat regularly. Artificial respiration, tracheotomy, oxygen by inhalation, applications of the actual cautery to the thorax, frictions, hypodermic injections of ether, electrization of the diaphragm, and an attempt to let blood from the arm, all proved unavailing; after two hours spent in their employmynt, the woman was undisputably dead. M. Polaillon referred to other instances in which irrigation of the peritoneum had produced such an embarrassment of the respiration that great difficulty had been met with in resuscitating the patients, and like occurrences were alluded to by M. Guerin. Polaillon suggests that these untoward effects are produced by the action of hot water as such upon the solar plexus. The author of the account given in "Lyon medical," however, seems to think that M. Polaillon's pafient died rather from the poisonous effect of carbolic acid than from a reflex inhibition of respiration.—*N. Y. Med. Jour.*

PROGRESSIVE OPHTHALMOPLEGIA.

The commonest cause of progressive ophthalmoplegia is syphilis or independent degeneration of the nervous centers. M. Meyer has examined a man, aged 62, who was the subject of bleharoptosis and absolute immobility of the ocular globes, which were somewhat protruded and a little divergent; but accommodation was said to be intact. The corneal reflex was notably diminished, but no other nervous symptoms existed. A granular fatty degeneration of all the motor nerves of the eye was discovered on microscopical examination, and the muscles were in process of fatty and granular atrophy. The optic nerve, ophthalmic ganglion, and the fibres of the sympathetic presented no appreciable lesion. A peripheral neuritis was observed also in the phrenie nerves, in a great number of the intercostal nerves, and in diffierent musular and cutaneous nerves of the fore-arm, arm and leg. The hypoglossal and the glossopharyngeal were much changed, and also the pneumogastic, the recurrent, the superior laryngeal, and sensory branches of the trigeminal. There were no changes in the central nervous system. Although the man was much wasted and very tired and weak, further motor or sensory symptoms were wanting; no mention is made of the faradic reactions of the muscles. In connection with the disease of the phrenic nerve, the existence of a bronchial dilatation with mueh expectoration is interesting. Unless the cachexia gave rise to the multiple neuritis, the source of the change does not seem obvious.

New Treatment of Typhoid Fever.—Dr. C. T. Lewis, of Virginia, says (*Jour. Amer. Med. Asso.*), that if the the secretion of the bile be kept anywhere near its normal condition and quantity in cases of typhoid fever, the disease will run a mild and favorable course, because the bile will destroy or prevent the germs of typhoid fever from finding lodgment in the intestinal canal, or will remove or destroy them if reached.

Mercury in some form is about the best and the most commonly used cholagogue. Mercuric chloride is especially recommended on the ground that it neutralizes the toxic

product of the disease germs, without destroying the animals themselves, and acts more decidedly upon the liver as a cholagogue. The bile flows into the bowel and acts as a germicide and antiseptic. But after a while, the continuous use of mercury brings out its own poisonous effects upon the human system, depressing especially the nervous forces, so as finally to bring about a typhoidal condition. It may even cause diphtheritic ulcerations of the intestines.

Podophylin, rhubarb, jalap, euonymin, etc. produce a uniform bile secretion, but they irritate the bowels—they are purgatives as cholagogues. Ox-bile—theoretically suggested as the correct drug—has been practically tried, but failed to accomplish what was wanted of it.

After careful consideration of all the facts, Dr. Lewis now adopts the following plan of treatment: At intervals of two hours gives three doses, but not more, of a powder composed of two grains of calomel and one of rhubarb. After this, throughout the whole course of the disease, night and day, give 10 drops of dilute nitro-muriatic acid in a wine-glass of water every two hours. Also give a quarter-glass of fresh milk every three hours, night and day. If the acid and milk come at the same hour, give the acid first, as it gets out of the stomach sooner than the milk. If the patient becomes restless at night, give two grains of Dover's powder every two hours, beginning about two o'clock in the afternoon, until four doses and no more, are administered. If the fever riaes above 103°, bathe the shoulders, upper part of the chest, neck and arms, in cold water every 20 minutes, with a basin of cold water by each side of the patient for his hands to play in; and cloths wet with the same cold water are laid around the neck and on the bowels. The result of this plan is that of 180 cases so treated by Dr. Lewis, only four deaths have occurred, and these deaths were the results of preventable causes by the patients themselves. Be careful not to allow solid food until the patient is well convalescent.

Operation for Shortening the Round Ligament of the Uterus.—Dr. Paul F. Munde proceeds as follows:

Standing at the side of the patient opposite the point at which the ligament lies, he feels for the pubic spine with the index finger of the left hand, and distinctly marks its situation. Then, being careful not to draw the skin to one side, he makes an oblique incision quite down to the periosteum on the spine. In the incision thus made there pouts up a little mass of tissue which should not be lost sight of during the further steps of the operation, since it contains the terminnl filaments of the ligament; when this is picked up by the forceps its makes traction upon the ligament at its attachment to the pillars of the ring. Before making very strong traction upon the ligament during the replacement of the uterus, it is well, he says, to divide the nerve. The ligament varies in size from that of a knitting needle to that of a quill, and there may be that much difference between the ligaments on the two sides. Adhesions, or too small size of the ligaments known to exist beforehand constitute contraindications to an operation. He said he had broken the cord three times in making traction. The entire time occupied in the operation need not be more than half an hour. Formerly he thought it was more difficult to find the ligaments in fat subjects, but he no longer holds this opinion.

In suitable cases, those in which there is prolapsus of the uterus to a certain degree, retroversion or retroflexion, non-adhesion, and relaxation of the vagina and perineum, Alexander's operation does more toward retaining the uterus in the replaced position than any other operation. There are, however, other exceptional indications for the operation. It should never be done when there are uterine adhesions, and he says it is expecting too much of it, without the aid of a plastic operation, to hold up the prolapsed uterus and vagina. Of his 23 cases, 19 have proved successful, and the patients have been under observation from three months to three and a half years; the uterus has retained the

position it was put in when the operation was performed. In only seven of the 23 cases was Alexander's operation alone performed; in others it was supplemented by plastic operations on the vagina and perineum. Dr. Munde expressed himself as decidedly in favor of Alexander's operation in properly selected cases, and said the risk was very slight, and it caused very little pain or discomfort to the patient. None of his patients have been subject to the test of pregnancy subsequent to the operation, as has happened to some under the care of Alexander and Dr. Polk. He does not think he would give up the operation for the one prefered generally by German surgeons—laparotomy and fixing the uterus to the abdominal walls.—*Med. Sci. Reporter.*

Treatment of Extra-Uterine Pregnancy.—Dr. E. E. Montgomery thus formulates the treatment of extra-uterine pregnancy:

1. In every form of ectopic gestation, prior to the fourth month, the destruction of life by the Faradic current.

2. Between the fourth and sixth months, destruction of life by electricity, and some weeks later laparotomy.

3. In rupture, immediate laparotomy, with removal of sac, contents, and effused blood.

4. In cases that have passed the sixth month, wait until viability is well established and perform laparotomy, observing every precaution that separation of the placenta does not occur, close the sac above, and drain through the vagina.

5. In the case of death of fetus, it should be removed by laparotomy a few weeks later.

6. When the fetus has become macerated and abscess has formed, its sinus should be enlarged and the fetal residue removed.

A case of conception with occluded hymen is reported in the *Amer. Jour. of Obst.* Oct. 1888. The patient was a primipara, 29 years old, who had menstruated regularly from her sixteenth year. The vaginal orifice was found closed by a bluish membrane one-half centimetre thick, traversed by large veins, which extended from the urethral orifice to the frenulum vulvæ, and in which not the finest opening was to be discovered. The urethra on the other hand was so dilated that in the examination it was at first taken to be the narrowed vagina. It was assumed that the semen found its way through a, in any case very small, opening in the hymen, which was only closed during pregnancy by inflammation; and that later the urethra served for copulation exclusively. After incision of the closing membrane the woman was delivered without difficulty.—*Phil. Med. Times.*

Treatment of Furuncles in the External Auditory Meatus.—Dr. B. Loewenberg, of Paris, recommends the following treatment for this obstinate and painful affection: The patient having been placed upon the healthy side, a warm or cold saturated solution of boric acid in alcohol is slowly poured into the affected meatus, care being taken that the stream is directed into the concha and not toward the opening of the meatus. The level of the fluid on the outside should not be higher than the tragus or anti-tragus. If the furuncle has already opened, a super-saturated boric acid solution is employed (alcohol absolute 100 grammes, and finely-powdered boric acid 20 grammes). The use of the supra-saturated solution causes deposition of a certain amount of the acid, and prevents decomposition of the pus. This treatment is repeated until the discharge of pus has ceased and the inflammatory signs have disappeared. The author has often succeeded with it in aborting furuncles. An incision may be necessary in some cases, but should never be practiced until we are able to see and reach the center of the boil, and suppuration has so far advanced that pus is certain to be evacuated. The extreme pain is often relieved by instillation of a 1:20 solution of cocaine muriate into the meatus. Recurrences of the furuncle in the spring and autumn, or with the menses, as is frequently observed, are prevented by the use of boric acid solution at these periods. If the treatment is intrusted to the patient, he should be

cautioned to syringe the ear from time to time with a watery solution of boric acid, so that obstruction of the meatus may not result from accumulation of the powder.—*Jour. Surg. and Anti.*

Polypoid Sarcoma of the Vagina of Children.—At the Second Congress of the German Society for Gynecology, May 26, 1888, Dr. Carl Schuchardt read a paper on this rare class of tumors. The eight cases thus far reported in literature all terminated fatally in a short time, a recurrence taking place rapidly after extirpation. The author reports two additional cases. In the first a child, seven months of age, presented a tumor of the size of a walnut on the right lateral wall of the vagina, which was thoroughly extirpated. A recurrence took place two weeks after the operation, and the patient died five months later. Microscopical examination showed a round and spindle celled sarcoma, with abundant cavernous blood-vessel formation. The second case occurred in the practice of Professor Volkmann, the patient being two and a half years of age. The tumor, which was pedunculated, racemose, and of the size of a hazelnut sprang from the posterior vaginal wall. Excision was performed, but a recurrence followed in six and a half months in the same place, the tumor presenting similar appearances to the first. In the second operation, the entire lower half of the posterior vaginal wall as far as the recto-vaginal septum was excised, and the rest of the wall brought down and fastened to the skin by nine sutures. Healing by first intention in nine days; since two years no recurrence. The author ascribes the good results obtained in this case to the fact that the apparently healthy mucous membrane in the vicinity of the growth was removed, since anatomico-pathological examinations have showed that sacromatous polypoid excrescenses occur at some distance from the tumor and may be regarded as the commencement stages of the process.—*Journ. Surg. and Anti.*

The Treatment of Acne.—At a recent meeting of the Berlin Medical Society, Mr. Isaacs gave an address on acne, principally discussing the treatment of the disfigurement, and showing patients. After describing the various methods of treatment, he remarked that while employed iu Lassar's klinik, where every form of treatment was tried, he invariably fell back on a ten per cent. napthol ointment, composed of napthol 10, sulph. precipit. 50, saponis virid. and vaselin, each 20 parts. The ointment was applied to the affected parts, and kept there from half an hour to an hour, and then removed with lint oil. The following day there was slight redness and scaling of the skin. The procedure was repeated until the peeling was completed, which usually took place in from eight to fourteen days. Lately he had adopted the use of a resorcin ointment in obstinate cases: Resorcin, 2.5 to 5.0; zinc oxid. and amyl. 5.0; vaselin, 12.5. M. To be made into a soft paste. The ointment to be put on at night and allowed to remain on till morning. He had seen very good results in the ten or fifteen cases in which the treatment had been employed.—*Med. Press.*

Antiseptic Dressing.—By Dr. F. Poncet. The author after inoculating a series of gelatine tubes with the following dressing: Carbolized lint, borated lint, sublimate peat, sublimate cotton, found that the only tube which remained free from germs was that inaculated with the sublimate peat. In another series of experiments he used the following dressings: Bichloride lint, heated to 170° C., plain lint heated to 170°, simple bichloride gauze, peat and cotton. The tubes containing the heated lint and those containing the bichloride of peat alone remained sterile. The author's conclusions are follows:

The sublimate peat posseses good antiseptic qualities, but the superheated lint is thoroughly aseptic and is cheaper. Heat is the best, simplest and most efficient germicide. Mr. Poncet further states that all dressings should be heated within a sterilizer a few hours before using.

Camphoric Acid as an Antiseptic.—By Dr. Max Reichert (Berlin). Camphoric acid is produced by oxidation of camphor by means of nitric acid, and occurs in colorless rhombic crystals or needles. It is very slightly soluble in cold water, much more soluble in hot water, and readily soluble in alcohol, ether and fixed oils. The solutions should, therefore, always contain a certain amount of alcohol. The author has employed camphoric acid with much success in various diseases of the fauces and larynx. It is an excellent astringent and antiseptic even in weak solutions, and has no poisonous properties. In tonsillitis a 1 to 2 per cent solution as a spray or gargle is much more efficient than chlorate of potash, borax, etc., and if used early may prevent suppuration. Ulcers of the mouth, nose, pharynx and larynx, of tubercular or non-tubercular character are healed rapidly by applications of 2 to 6 per cent solutions, and small wounds, ulcers and eruptions of the skin are also benefited by this treatment.

Hydronaphthol as an Antiseptic.—Dr. Roswell Park, of Buffalo, has prepared culture media with various antiseptics in different proportions, including carbolic acid, iodoform, iodine, naphthaline, hydronaphthol, resorcin, trichlorphenol, creolin, sulphocarbolate of sodium, boric acid, perchloride of iron, antipyrin, antifebrin and quinine. Almost the only one of these antiseptic jellies as thus prepared which has prevented all growths was hydro-naphthol, 1:100. This shows that hydro-naphthol can be relied upon as an antiseptic. Many of the bacteria grow freely on iodoform jelly, 1:100. Oxide of zinc is a better solid antiseptic than iodoform. The author thought that our present knowledge permitted us to associate certain bacterial forms with definite pathological lesions.

A Disinfectant of Air.—According to M. Keldyche, who has just published the results of a series of experiments on the air drawn from his hospital wards, air which has been saturated with eucalyptol will no longer give rise to colonies of bacilli in gelatine. The spores of fungi are able to pass unharmed, but as their action on the higher animals is probably limited, it is not a matter of much importance. If confirmed by independent observation, this valuable quality renders the drug worthy of wide-spread employment, for no other disinfectant is known which can be relied upon to effect its purpose without rendering the air irrespirable, besides acting very injuriously on furniture, clothing, etc.

Bodies in the Joints.—By Dr. Risenfeld. Five cases are reported by the author, which were operated on by Wagner. These four could be referred to a traumatisms, while in one no apparent cause could be found. The size of these bodies, which were present in large numbers in the affected joints, varied from that of a pea to that of a patella. Most of them were freely movable, but some were adherent to the parietal surface of the synovial membrane. On section, two layers, a whitish and yellow layer, could be distinguished, which consisted of bone and fibro-cartilage.—Translated from *Breslauer Aerzt Zeitschrift*, No. 2, 1888.

Disinfection of the Hands. Dr. Mugnai states that for perfect disinfection of the hands more or less time is required according whether they have previously been disinfected or not. In the latter case it is sufficient to brush them in a 2½ per cent solution of carbolic acid; in the latter case they should be washed for one and a half minutes in a 1 per cent solution of sublimate and immersed for the same length of time in this solution.

Microbes in Books.—The man who is not prevented from turning book-leaves with a wet finger by fastidious refinement may well pause for fear of microbes. The authorities at Dresden have been investigating the

question whether circulating libraries are a medium for the spread of infectious diseases. They rubbed the dirtiest leaves of the books, first with a dry finger and then with a wet, microscopically examining the product in each case. In the first case scarcely any microbes were found on the finger; in the second case, plenty! Though all these appeared to be of a non-infectious character, the committee winds up with a recommendation to readers not wet the finger in the mouth for the purpose of turning over the leaves.

A NUMBER of cases are on record in which ovariotomy has been performed during gestation and the patients made good recoveries pregnancy continuing to full term uninterrupted. Dr. W. W. Potter reports a case in the *Amar. Jour. of Obst.*, in which he removed both ovaries during the fourth month of pregnancy, which was in no way interfered with.

DACOSTA says, that which he considers most important in the treatment of gastric ulcer is to keep the patient in bed.

BOOK REVIEWS.

A Compend of the Diseases of the Eye, including Refraction and Surgical Operations by L. Webster Fox, M. D., Ophthalmic Surgeon to the Germantown Hospital, Phila., and Geo. M. Gould, M. D. P. Blakiston, Son & Co., 1012 Walnut St., Phil., price $1.00.

Though the authors state in their preface that this "quiz-compend is not intended for specialists," I think it is an admirable little book to add to the library of the ophthalmologist, as well as the general practitioner. Part I. on Refraction of the Eye is decidedly clearer than some of our text-books are on this subject. I agree with the authors, that there is too much indiscriminate prescribing of glasses, and I feel sure that every physician who reads Part I of this book will appreciate the importance of having this work done properly.

The *Ved. Reg.* must have scanned page 38 very hastily, as he has clearly misinterpreted the text. The copy that I have distinctly says that eyes affected with convergent strabismus are generally hyperopic, and divergent eyes are nearly always myopic.

A maxim that should have been added to clinical hints and maxims is, that no one but a thoroughly qualified oculist should essay to remove a cataractous lens from an eye.

Upon general principles it is a bad plan to place in the hands of the inexperienced set formulæ. Every case of eye disease is a law unto itself, and formulæ tend to routine practice.

The advice to enucleate a hopelessly blind eye unless the remaining one be in a like conditions needs to be greatly modified. In some cases this would be decidedly bad practice.

I heartily commend this little book to the readers of the REVIEW.

The United States Dispensatory, by Geo. B. Wood and Dr. Franklin Bache. Sixteenth edition, rearranged, revised and largely rewritten. By H. C. Wood, M.D., Jos. P. Remington, Ph. M. and Sam'l P. Sattler, Ph. D., Phila.: J. B. Lippencott & Co., 1888. For sale, by Robert Clarke & Co. Cloth, price $7.00.

Some weeks ago we notified the readers of the REVIEW that this work was in press. It now ready for delivery. This edition contains about two thousand pages of matter that is arranged in alphabetical order and carefully indexed. The National Formulary of unofficinal preparations is given, and two hundred and seventy pages are given to drugs and medicines not officinal—such as are not embraced in the British and United States Pharmacopeias. This includes the new drugs, antipyrin and antifebrin and others. The man who practices medicine without a good dispensatory, does so with great inconvenience to himself and the possibility of injustice to his patients.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 23. ST. LOUIS, DECEMBER 8, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

REMARKS ON THE PATHOLOGY AND DIAGNOSIS OF GALL-STONES, WITH REFERENCE TO THEIR TREATMENT WITH OLIVE-OIL.

BY WM. TOWNSEND PORTER, M. D.,
Professor of Physiology and Lecturer on Diseases of the Throat in the St. Louis Medical College.

The consideration of the treatment of gall-stones with olive-oil involves three problems: (1) the action of the oil; (2) the correctness of the diagnosis: (3) the value of olive-oil in this disease in comparison with other remedial agents.

If the passage of biliary concretions through ducts smaller than themselves is made easier by olive-oil, and the pain of this passage is thereby made less or altogether stopped, what is more natural than to ascribe to the oil a lubricating or protective action. The oil is sometimes given for this very purpose.

A little reflection, however, will show that the mucous membrane of the biliary ducts cannot be coated with oil. As every one knows, the common bile-duct passes obliquely through the duodenal wall, running for three-fourths of an inch between the coats; in such a way that lateral pressure on the inner coat of the intestine would close the valve-like aperture of the duct. (I have demonstrated the truth of this assertion by an experiment at the St. Louis City Hospital upon a cadaver which was kindly placed at my disposal by Dr.H. C. Dalton, Superintendent). The oil, therefore, could not enter the common bile-duct through a mouth made to gape by distention of the duodenum.

It is difficult to believe that oil ever, under any circumstances, passes into the common duct. We know that when the pylorus relaxes and the vigorously contracting stomach begins to squeeze out its contents into the duodenum one of the first effects of the passage of the chyme over the intestinal mucous membrane is a stimulation of its sensory fibres. The sensory impulses thus aroused are carried to the spinal cord and thence reflected to the smooth muscles of the biliary ducts and the gall-bladder, setting up peristaltic contractions, and causing an outpouring of the bile. The pressure of the bile in the biliary passages is very low. In the gall-bladder of the guinea-pig it was found by Heidenhain and Friedlaender to equal a column of water only 200 mm. high. Yet, even this low pressure is sufficient to force the bile into the duodenum against the resistance of the chyme with which that viscus is partially filled. It is not possible that the resistance to the outflow from the biliary duct is greater during the passage of medicinal quantities of oil and w ter through the duodenum than during the digestion of a full meal. If the chyme does not enter the bile-ducts neither will the oil.

Finally, the low pressure which obtains in in the common bile-duct on ordinary occasions, although itself sufficient to prevent the entrance of intestinal fluids, is probably much increased in gall-stone colic, even in that part of the duct below the stone. When the stone enters a canal that is narrow enough to hinder its progress, the stretched muscles in the wall of the canal respond by contractions, the vigor of which, other things being equal, is proportionate to the resistance to be overcome,in accordance with the physiological law that the work done by a muscle increases, within limits, as the load increases.

It is this contractile spasm of the muscle-fibres, this violent compression of all that lies within their grasp, that gives rise to the acute, often agonizing pain by pressure on the intra-muscular terminations of the sensory nerves. This extraordinary muscular effort probably raises the pressure in the duct on both sides of the stone, though to a much higher degree on the proximal side of the obstruction.

It is possible, therefore, that the anatomical and physiological peculiarities of the bile ducts prevent the entrance of intestinal fluids.

A second, and a better reason why the mucous membrane of these passages cannot be protected with oil is that it is impossible to give a coating of oil to a membrane moistened with water.

Professor Rossbach, of Wurzburg, dried the mucous membrane of the trachea of the cat with filter-paper and covered it with a layer of oil, only to find the mucous secretion immediately again issuing forth in little drops from all the mucous glands, and, after one or two minutes, covering the whole mucous membrane with a layer of mucus. (Ueber die Schleimbildung und die Behandlung der Schleimhauterkrankungen in den Luftwegen. Festschrift der Julius-Maximilian Universitat. Leipzig, 1882, p. 105). I have repeated this experiment with similar results. (These same facts may be used with equal force against the idea that an intestinal foreign body can be ensheathed with oil while in the upper intestinal tracts, and, therefore, necessarily covered with mucus.)

Let us now leave for a time this first problem (the action of the oil), and examine the position of those who claim to have seen admirable results from the employment of this remedy in this disease.

We come at once upon the second of the two problems with which we are concerned, for it is evident that the correctness of the assertion that olive-oil is of service in this disease rests primarily upon the correctness of the diagnosis. It is only in cases whose diagnosis is above suspicion that reliable inductions concerning the therapeutic value of a remedy can be made.

As will be shown presently, we cannot be sure of the diagnosis of gall stone colic unless a gall-stone is found in the stools. (Trousseau, Frerichs, Murchison, Harley.). There is but one exception to this rule. (An exploratory laparotomy for the purpose of diagnosticating gall-stone can so rarely be justified that it need not be considered). An impacted gall-stone may rarely be found with an exploring needle, a method of diagnosis introduced by Dr. Whitaker, of Cincinnati, (N. Y. Medical Record, 1882, 1; 568). It is said that biliary concretions appear in the feces after the use of olive-oil, thus confirming the diagnosis. (See case reported in N. Y. Medical Record, April 4, 1888, by Dr. T. W. Street, U. S. A.) The London Medical Recorder is authority for the statement that similar claims for the power of olive-oil to cause large evacuations of gall-stones were brought forward by Dr. Kennedy in 1880, and that Dr. Shingleton Smith in 1881, exposed the fallacy of the claim, and stated that the masses found in the feces were not gall-stones, but the oil itself in an altered form. Additional proof has lately been furnished by Professor H. W. Wiley, chemist of the Department of Agriculture. Dr. Prentiss, also of Washington, had a patient who took 12 ounces of olive-oil to allay hepatic colic, and passed a large number of moderately hard, ovoid bodies which the patient thought were gall-stones. (Olive-oil in the Treatment of Gall-stones; Med. News, May 12, 1888, p. 518). On examination Prof. Wiley found them to be a mixture of soap and free fatty acids. The chief part of the alkali was sodium, and there was also a little calcium. (Note on the Action of Digestive Fluids on Oil; Med. News, July 28, 1888; p. 95). Similar masses have been found by Hoppe-Seyler in the feces of dogs, (Physiologische Chemie, 1885; Sec. 70, p. 91.) and Wegscheider (Quoted by Wiley; loc. cit.) has discovered calcium soaps in the feces of healthy children who were nourished exclusively by mother's milk.

It is probable that in most instances in which oil has been given for biliary colic, no pains have been taken to verify the diagnosis. Many medical men, if summoned to a patient who combined severe paroxysmal pain with jaundice, would at once diagnosticate obstruction from gall-stones, and would not search the stools.

It is easy to see that a diagnosis so made is totally untrustworthy as a premise on which to base conclusions regarding the effects of treatment. The factors in such a diagnosis are (1) paroxysmal pain, and (2) jaundice. It will be convenient to speak of these together. The majority of gall-stones are formed in the gall-bladder. If the stone is impacted in the cystic duct, bile continues to flow unimpeded through the hepatic duct and common duct. If the form of the stone be angular, the duct wherein it is impacted may not be completely blocked,and bile may pass. The stone may be impacted in the common duct for many hours, and jaundice be absent, for the icterode hue seldom appears in less than 60 or 70 hours after complete occlusion of the hepatic or common ducts, though highly colored urine and pipe-clay stools may appear several hours earlier. (Harley; Diseases of the Liver; Blakiston, 1883; p. 385). Jaundice, therefore, may be absent in obstruction from gall-stones. Pain may be absent during the passage of even large gall-stones. In a case of Hilton Fagge's, there was jaundice unattended by pain; death from hernia; numerous gall-stones found in the gall-bladder; and the common duct so dilated as to admit the finger. (Guy's Hospital Reports, 1875, vol. xx; quoted by Murchison).

When the common duct has been once dilated by a large stone, scores of smaller ones may subsequently pass without pain or jaundice. In such cases pain and jaundice may both be absent. Large stones may pass quite unknown to the patient, as happened in the experience of Dr. Senac, of Vichy. (Du Traitement des coliques hepatique; Paris, 1870; p. 46; quoted by Murchison. See also Niemeyer; Prac. Med.; 8th ed. vol. I, p. 374). Jonathan Hutchinson read a paper at the Brighton meeting (1888) of the British Medical Association in which he showed that gall-stones far too large to get through the common duct sometimes escape by forming an ulcer of communication with the bowel without producing any severe symptoms, general or local. How large a gall-stone may find its way through the common duct is a question difficult to answer. Calculi, the size of hen's eggs have been known to pass. (Rokitansky; Pathological Anatomy; New Syd. Soc., vol. II, p. 164). Thus we see that all the symptoms of the passage of gall-stones may be absent, and gall stones yet be passed.

The converse of the above proposition is no less true; all the symptoms of the passage of gall-stones may be present yet gall-stone be absent. For example, hydatid cysts may produce every symptom of gall-stones, as in one of Murchison's cases. (Clinical Lectures on Diseases of the Liver; Wm. Wood & Co., 2nd ed., case xxxiv). A patient who died in the Hopital St. Louis, Sept. 20, 1863, had violent hepatic colic with deep jaundice. The post-mortem examination showed an hydatid cyst. (Trousseau, Clinical Medicine; Blakiston, vol. II, p. 522). These, however, are surpassed by the extraordinary case published by Dr. Becker. In this case jaundice came and went, the liver was enlarged and tender, pain and vomiting were present, the stools were the color of pipe-clay, and the urine dark with bile pigment, all these characteristic symptoms disappeared upon the patient, a lad of 17, passing in his stools large quantities of hydatid vesicles, with characteristic hooklets. The patient subsequently died from a rupture of the hydatid cysts into the bronchi. (Berl. Klinische Wochenschrift, July 14, 1879. Quoted by Harley).

Acute hepatitis gives rise to jaundice and to sharp pains recurring in paroxysms. Emaciation, loss of strength, vomiting, severe paroxysmal pain, and intense jaundice may be symptoms of both impacted gall-stones and cancer. Murchison records a sarcoma of the liver accompanied by severe pain of paroxysmal character. (Loc. cit., case

of L. N.; p. 236.) Acute internal strangulation sometimes simulates gall-stone colic. (See case mentioned by J. Hutchinson, Brit. Med. Jour., June 30, 1888, p. 1374).

While Harley was house physician at a London hospital he saw one of the visiting staff diagnosticate acute peritonitis, from perforation of the stomach in a patient who was soon after shown to be suffering from hepatic colic. (Harley; Loc. cit., p. 387). "It was this case," writes Harley, "which led me to devote many years of my life to the study of hepatic disorders."

Intestinal worms, or inspissated bile, may block up the ducts and cause all the symptoms of hepatic colic. The pains of pleurisy, pleurodynia, intercostal neuralgia, gastric dyspepsia, intestinal and renal colic, are often referred by patients to the liver. On the other hand, pains thought to arise in the stomach are frequently due to gall-stones. Ulcer of the duodenum, near the opening of the common duct, has been known to produce spasmodic abdominal pain followed by jaundice, and the cicatrix of such an ulcer may completely obliterate the orifice of the common duct. (Murchison; loc. cit., case cxxii).

The symptomatic value of jaundice is much lessened by the knowledge that jaundice may be brought about in so many, and in such diverse ways. Jaundice and vomiting may undoubtedly follow the sudden contraction of the diaphragm that sometimes accompanies violent mental emotions. I have recently observed a woman in whom a fit of anger caused spasm of the diaphragm, dyspnea, giddiness, and a sense of constriction about the level of the epigastrium. In such cases jaundice may appear in a few hours, or even less time. An example, which appears rather apochryphal, but which was deemed by Frerichs sufficiently authentic to find a place in his great work, (Diseases of the Liver; Wood's ed., vol. I, p. 112.) is the case recorded by Villerme: "Two young persons quarrelled and drew their swords; one of them suddenly became yellow, and the other, terrified at this change of color, dropped his weapon." (Dict. des Science. Med., art. Icterus, p. 240.

Such is the account which those most learned in diseases of the liver give of the difficulties which surround the diagnosis of gall-stones. It is not surprising that Trousseau should commence his lecture on Biliary Calculus with these words: "Gentlemen: listen to the language used by Morgagni in relation to biliary calculi. 'I greatly fear,' he says, 'that what was true in the times of Fernel is true in our day, and will remain the same in the future, that is to say, that we shall continue to be without characteristic signs by which they can be certainly and easily recognized, and shall, as hitherto, have only conjecture to guide us in forming a diagnosis.' (Morgagni: His 37th letter on the Seat and Causes of Disease). The progress of modern science has not in anyway altered the truth of Morgagni's proposition; for us, as for our predecessors, the diagnosis of hepatic colic remains imperfect up to the time when a patient passes a calculus or a fragment of one. Till then, there are no data except probabilities—probabilities, in some cases, it is true, exceedingly strong." (Trousseau; loc. cit., p. 516).

There is a shadowy possibility that biliary concretions are sometimes dissolved in the intestines. Setting this aside as a very doubtful hypothesis, (Such an assertion is made by Murchison (loc. cit., p. 143) but no proof is offered.) we may affirm that in all cases of gall-stone colic biliary concretions are present in the stools. Some believe that to this rule there is one exception; that stones enter the cystic duct, set up paroxysmal pains, and, after a longer or shorter time, return into the gall-bladder. (Niemeyer, loc. cit., p. 735) suggests the possibility of this). An anatomical foundation for this assertion is lacking. To cause hepatic colic the stone must distend the duct. The mucous membrane of the cystic duct is disposed in folds having, when the duct is distended, a valvular arrangement, which, as Harley points out, permits in only one direction, the passage of bodies bulky enough to cause pain by distention.

Whether gall-stones are found in the stools depends on how they are looked for. It is commonly believed that gall-stones will float if water be poured on the feces. As a matter of fact, most gall-stones in the recent state are heavier than water. Sir Thomas Watson said that he had never once succeeded in thus catching a concretion in the evacuations of a patient whose symptoms had led him to search the stools. "The only reliable way," he continues, "is to pass the whole evacuation from the bowels through muslin or a sieve." (Practice of Physic; 1858; p. 976). This procedure must,if necessary, be repeated many days after the attack. A woman treated at the Hotel Dieu never passed calculi by stool until the third, fourth, or fifth day after the termination of the colic. (Trousseau; loc. cit., p. 517). Wolff, examining the feces sometimes for months after an attack, found gall-stones in every case of hepatic colic (45 in all) occurring in his practice of 43 years. (Virchow's Archiv., 1861; vol. xx, p. 1).

I know very well that the exigencies of practice do not always permit an examination of the feces. But it is plain that such an examination must be made, and the diagnosis thereby proved, before any induction can be made as to the effects of a remedy in this disease. Even when an examination subsequently proves the correctness of the diagnosis made in the hour of pain, the greatest caution is necessary in arriving at a conclusion concerning the power of any such remedy as olive-oil to shorten that pain. No man can tell whether the most agonizing attack of hepatic colic will continue fifteen minutes or fifteen hours. If the stone quickly escapes from a small canal into a larger one, the pain will as quickly cease.

The hot draught of oil and water can do good in but one way—by favoring relaxation. But favoring relaxation is the very end for which we should strive; if the harmless oil does this, why should it not be given? I reply that to rely on such an agent may indirectly do great harm. In severe cases the pain speedily causes dangerous exhaustion, and may cause death, the violent contractile spasm of the ducts threatens rupture—the pain should be stopped and the spasm lessened at once. When the pain is less severe, the danger of rupture may be equally great or even greater, for tearing of the wall depends on the relation between the strength of the wall and the rending force, and who can say what is the condition of the walls of the biliary passages in any given case? It is impossible to know if they be sound, or so weakened by disease that any unaccustomed strain will break an opening into the peritoneum with almost invariably fatal result. The danger of rupture is no imaginary one. Three gall-stones believed to have escaped from the gall bladder by ulceration, are said to have been found by Realdus Columbus in the portal vein of Ignatius Loyola, founder of the Society of Jesus. This visceral scourging of the great Jesuit is somewhat mythical, but very many undoubted instances of death from rupture of the biliary ducts exist in hepatic literature. (For examples see Murchison, loc. cit., case cxlv; and the instance of complete rupture of the hepatic duct quoted by him from Fauconneau—Dufresne's prize Memoir; also three instances cited by Trousseau, loc. cit., p. 526).

So that the passage of gall-stones through these ducts must always be clinically regarded as a condition full of uncertain and dangerous elements. The condition resembles parturient spasm of the uterus, and should be treated on the same lines. We cannot safely attempt to stop the reflex contractions of involuntary muscles; nor is it desirable that they should be stopped, for in that event the evil hour would only be postponed. Contraction must go on, but the over-contraction, the spasm, must be overcome. A remedy should be chosen which is safe with reasonable care, which acts speedily and certainly, and which does not cause struggles that may increase the exhaustion of the patient. Such an agent is chloroform.

It may be said that many cases are too mild to call for such severe (?) measures. It is only in severe casse that even a probable

diagnosis can be made at the hour of attack. The absence of paroxysmal pain makes the diagnosis during the attack impossible, except by exploratory puncture, a procedure hardly to be justified under such circumstances. Nevertheless, if gall-stones are suspected, such spasm and irritation as may be thought to be present must, as far as possible, be removed. These cases, without even a probable diagnosis, call for hot poultices externally, and large draughts of hot water internally. The famous Dr. Prout used to say, in the days when anesthetics were little used, that large draughts of hot water with soda were to be preferred to any other means of treatment. No indication is met by the oil which is not equally fulfilled by hot water.

The facts adduced above appear to me to show that, 1. No protecting or lubricating action is exerted by oil in those parts of the intestinal tract whose contents are fluid. 2. No positive diagnosis of gall-stone colic is possible unless a stone is found in the feces, or unless an exploratory operation is done. 3. There is reason to suppose that in many of the cases of hepatic colic said to have been benefited by olive-oil the diagnosis has not been verified by the finding of gall-stones in the stools. 4. The pathological condition which is the immediate source of danger in gall-stone colic is the contractile spasm excited by the stone. 5. Treatment should be directed to relieve this spasm by chloroform, and moist heat internally and externally where paroxysmal pain or exploratory puncture makes the diagnosis probable, and by moist heat alone in cases where slight pain makes the diagnosis less probable. 6. Hot olive-oil is of assistance only because of its moist heat, and nothing is gained by its use which is not secured in equal measure by the administration of hot water. 7. The so-called olive-oil treatment should be abandoned, because it implies a special virtue in the oil which the oil does not possess, and a reliance on which tends to prevent the use of rational methods.

ARE PSEUDO-MEMBRANOUS CROUP AND DIPHTHERIA IDENTICAL?

BY DR. J. M. ARMSTRONG, COALBURGH, ALA.

Early in April, 1865, I swung my shingle to the breeze and sat in a cozy little office in an interior town in Illinois, anxiously awaiting calls, professional ones preferred. Before the month had passed away I had several little odd professional duties to perform, and one of the few was to see a very colicky baby of some three months of age. After having examined the little fellow, and asking all the questions that I could think of that could have any bearing upon the case I proceeded to prescribe for him secundum artem; while doing so my attention was called to a very bright, blue-eyed, healthy appearing, two-year old boy, with the request that I "take a look at him." I did so. He coughed once in a while, his nose seemed to me to be stopped up in some way, and he seemed to and did make considerable noise when he breathed. I placed my ear to his chest, felt his pulse and endeavored to see his tongue, all of which would have been very essential to show that I knew something. After having gone through all this performance, I informed the anxious mother that there was nothing the matter with the little fellow except a bad cold, and that it would wear off in a day or two. I endeavored to explain that "a cold" caused a redness and thickening of the mucous membrane of the throat, and extending down into the upper air passages had caused a swelling of the vocal cords, and that was the reason why he was hoarse and could not speak as plainly as before, all of which seemed to be very satisfactory. The next day I called to see the colicky baby; the baby was well (?), of course. My attention was again called to the boy. I examined him the best I knew, and after having gone through with all the maneuvres I could think of, in order to show my wisdom of the business in which I was engaged and very pompously informed them that it was a very simple case of "a cold," and would soon wear away and

all would be well. This did not seem to satisfy them, and I felt reluctant to take my departure. The interest manifested by the parents in the welfare of their child, and their apparent want of faith in my opinion was the cause of my delay.

I remained for some time, and thereby had an excellent opportunity to observe the movements of that child. The raspy, thickened breathing could be heard across the room, very little faster than normal; his face was somewhat flushed, with a little puffiness under the eyes; he was very industrious in arranging his playthings, and when stooping to pick up anything from the floor, would often cough a dry wheezy expulsion of air, resembling somewhat the wheeze of a distempered dog he would climb on the chairs, into his cradle, lie down and turn about, first on one side, then another, then call for a drink; then to his mamma, "Up, mamma, up;" when in her arms he would shift from side to side, and twist around in all manner of positions,and finally wriggle himself out, when the same restless, ceaseless performances would be enacted over again. Several times I picked him up and listened all over his chest for sounds, but could discover none, looking into his throat, hoping, wishing, wanting all the time to find the difficulty in his nose. I prescribed some little thing for him and left; called again late in the evening, found him in the cradle breathing harder, the cough harder, finer, and more difficult, the same restless, fussy little fellow I had left but a few hours before. I noticed that at this time there was a hitch in the expiratory movement, a sigh with the hitch in expiration, instead of inspiration. The muscles of the lower jaw and neck were called into action in the respiratory act, the abdominal muscles also. The lower borders of the ribs and abdomen were all deeply concerned; the xiphoid cartilage would almost dip to the vertebra at every inspiration. The nose was pinched, the alæ drawn in, and the facial expression was that of anguish; every few minutes—"up, mamma, up," would clamber all over her. "A drink, mamma, a drink"—the voice getting fainter and fainter all the while. He would turn his pretty blue eyes to me and hold out his dimpled little hands. "Up, up." Soon he would look at his cradle and into it we would lay him. And so it went on, hour after hour, until he was gradually choked to death. I cannot recall these scenes without considerable feeling, the remembrance of them bringing forth many regrets. This child died of what I since learned was membranous croup. Eleven successive cases followed this one during the next nine years, all presenting the same symptoms, ending the same way, except one, which recovered by chance. Two cases never occurred in the same family, contagion or infection was never thought of, and no precautions were taken whatever. The five-year olds were permitted to nurse, fondle, kiss and hover over the dying two-year olds. No membranes were ever expelled or seen in any cases of membranous croup that has come under my observation. When such a thing was discovered it was pronounced diphtheria, and complete isolation enjoined. In all of these cases except the first consultations were held, and all the remedies known to us were used to the best of our judgment, excepting tracheotomy—intubation was not then thought of—all to no purpose.

Seven cases have added to the 12 already mentioned since then, and all have recovered —the last one discharged to-day, Oct. 31, 1888.

It is to save or help do so, these little fellows from a premature death, or from the necessity of having their little tracheas opened, and to enter my solemn protest against the identity of these two diseases, croup and diphtheria, that calls forth this article.

Membranous croup has been the most regular disease with me that I have ever met. The symptoms of one covers all, even the hour of attack the same. The husky breathing of true croup commences, or is first observable at 4 P. M., never attacks a child with a spasmodic splurge in the middle of the night—and a raspy cough that will "harrow

up your very soul, make your blood run cold, etc.," but with a gradually increasing hoarseness, a husky, wheezy cough, difficult breathing and loss of voice. A child with true croup gradually and slowly chokes to death. There is always fever, a flushed face at first, cold and deathly afterwards, and an accelerated pulse, bowels are always constipated, even if diarrhea existed before, it will be checked. It never attacks the baby of one year and under, but always the bright, healthy, rosy-cheeked 2 or 3 years old boy—in preference to a girl—and there are never two cases in the same family at the same time. In the treatment of this disease the following is recommended and guaranteed as it never failed me. It matters not the age of the child, 18 months or 5 years is all the same, give immediately, ℞ yellow sulph. Mercury, gr. v, pulv. ipecac, gr. i, calomel, gr. i at one dose, follow it with ounce drinks of warm water every few minutes, if emesis is not established in five minutes repeat the dose, if the younger child, half the dose will be sufficient; repeat the warm water until the child becomes thoroughly nauseated. This is all that is requisite at this time, but the dose or ½ or ¼ of it is to be repeated at intervals sufficient to keep up an almost continual nauseae,of course it can be carried too far, be careful of this.

℞	Ammon. chlor. pulv. -	℥iss.
	Potass. brom, pulv. -	℥iiss.
	Potass. chlor. pulv - -	℈ii.
	Tinct. Aconit. Rad. - -	gtt. v.
	Tinct. Ferri chlor. - -	℥ii.
	Aqua	
	Syr. simplex, aa q. s., ft.,	℥v.

Sig. A teaspoonful every hour. This is to be given continuously, in bad cases it should be given every half hour.

Procure a bushel or two of fresh unslacked lime, deposit a lump the size of your fist if it's a large one, in the bottom of a wooden bucket, and throw a gill of pure clear water upon it, then a cloth over the bucket, and when the gas begins to arise, place the bucket upon a table, wrap a shawl around the child's arms, remove the cloth and hold the child's face within six inches of the top of the bucket in the escaping gas, just the time that it takes the child to perform two respirations, no more. In fifteen minutes, repeat this process and continue to do so until the breathing becomes less labored and slower, and as the child improves, which it will do, lengthen the intermissions till it is no longer required, remember, however, that a child cannot live long breathing the gas, the object is to dissolve that membrane which it will do.

The mercury will prevent any new formations, and the ammonia, bromide solution, calm nervous irritability and subdue inflammations of mucous membranes, that is all the therapeutics there is about it, one thing is certain it will cure true croup.

TREATMENT OF PERITONITIS.

BY DR. J. M. BALDY.

Extract of paper read before the Philadelphia County Med. Soc., Nov. 7, 1888.

Peritonitis arises, as you are well aware, from a vast variety of pathological conditions, and in dealing with it, the origin of the inflammation must always be taken into consideration. The plan of immediately putting every case of this disease on the opium treatment is departed, and, nowadays, no one would think of pursuing such a course, in a peritonitis following rupture of an abscess, for instance, provided an abscess was known to have ruptured; nor in the case of a penetrating wound of any of the hollow viscera, with extravasation of their contents into the peritoneal cavity. The first thing to be established when called to a patient suffering with peritonitis, is the cause of the trouble. This is not by any means an easy thing to do.

It is simply impossible in a large number of instances to do more than guess at the real cause. But although we can not always detect from a mere examination of a patient the cause of the trouble, it does not follow by any means that the disease has arisen idio-

pathically. The more I see of peritonitis, the closer and closer am I inclined to draw the line at the idea of an idiopathic origin. I am not yet quite ready to deny the existence of such an origin altogether, but as our knowledge of intra-abdominal troubles has grown, just so steadily has idiopathic peritonitis diminished in frequency.

On the other hand, cases of peritonitis are constantly falling into our hands in which the diagnosis is comparatively easy, and then I think the indications for treatment are plain; while the exact condition of affairs remains in doubt, the best of men may hesitate, and often their hesitation is responsible for the unfortunate ending. Once, however, given a correct diagnosis, there should be no hesitation as to the course to pursue.

To begin with, I must unhesitatingly condemn the use of opium in any of its forms. I think the use of this form of drug, in these diseases, tends rather to increase the trouble than to diminish it; at any rate, if it does not do damage *per se*, it certainly puts the parts in an excellent condition to continue on in the course in which they have started, and blinds us to the damage being done.

It also almost invariably causes tympanites, with all the accompanying dangers of overdistention, and, as has happened, death from cardiac paralysis. And, further, I may say that this drug lures us into a false sense of security, and benumbs all our desires to make any further effort in our patient's behalf. The pain and tenderness being relieved, and the sufferer being made comparatively comfortable, we stand by and wait, our waiting as often leading us to the coffin as not, without our even suspecting that our patient is worse. After having stupefied and benumbed the patient, a consultant is perchance called into the case, only to find his hands tied, by having all the symptoms masked, and with no possible way of knowing what progress the disease is making, but by a surgical procedure, and that, in view of the fact that the patient seems better he dare not propose.

In great contrast to this picture stands the results of the use of salines. Here the bowels are put into active peristaltic action; this motion tends to prevent the formation of adhesions and bands; the peritoneal cavity is drained of the products of inflammation; the inflamed surfaces are relieved of all engorgement by a thorongh depletion of the vessels in the intestinal walls; the inflammation is most effectually stopped; the pulse and temperature almost immediately improve, and the pain is relieved as quickly as can be by the use of opium. This, theoretically, may seem strange, but nevertheless it is a clinical fact.

While writing this paper I was called to a woman sixty years of age. Her knees were drawn up; her abdomen was greatly swollen and tympanitic; the pain was excruciating, and she could not tolerate any manipulation whatever of the belly-wall; her temperature was elevated and her pulse quick; an anxious expression of the face and vomiting were present. The cause of the attack could not be detected, probably only because she could not be handled properly for an examination. Salines were administered, and in much less than fifteen hours the belly-walls were shrunken and flabby, permitting of free manipulation, with hardly any evidence of pain; vomiting had ceased; pulse and temperature were both in good condition, and, in fact, all the symptoms were rapidly disappearing. She had passed a most comfortable night, sleeping almost the whole of it. In twenty-four hours more I had discharged the patient, simply with instructions to keep her in bed for a few days longer, and feed her well, in order that she might regain the strength she had lost. I may add that the case had appeared so bad when first seen, that I had notified my nurse to be ready for a possible operation the next day. This same result has followed this treatment so often and so constantly in my hands that I have come to look for it with certainty, as soon as the bowels can be made to act. Of course should we suspect that a strangulated hernia was at the root of the trouble, or that there was pus in the peritoneal cavity, or that the intes-

tines were obstructed by an organic lesion at any point, we would not think of resorting to purgation, but would immediately turn to our surgical resources.

The sources of peritoneal inflammation are so numerous· it would be useless to attempt to farther enumerate them; but the general rule might, I think, be safely laid down, that where it could be demonstrated that the disease was caused by an organic lesion,abdominal section was indicated, and then in addition, those other cases which refused speedily to yield to purgative treatment, should be immediately dealt with in the same manner. When a pus sac is known to be at the bottom of the trouble, or an appendicitis is in existence, it is folly to fool with drugs of any kind; and where drugs are used and relief does not quickly follow, whether the cause is known or not, it is equally unwise to delay longer. The source of the disease once removed, the peritonitis will rapidly disappear. Cases reported in the journals are constantly demonstrating the worthlessness of all medical interference, and are steadily pointing to the fact that peritonitis is pre-eminently a surgical disease, and should not be intrusted in the hands of a purely medical man,but should be always and at once turned over to the surgeon. An article by Mr. Tait, in a recent number of the *Annals of Gynecology*, sets this forth in flaming colors. The very first case reported by him was one of purulent peritonitis, which had been tinkered with, until even the operation he performed was too late to save the woman. An abdomen containing pus, either encysted or free in the cavity, which produced by puerperal disease or any other, demands opening and removal of that pus from whereover found. If there is not active peritonitis present, the person afflicted is liable at any minute to be so attacked. This fact does not seem to be sufficiently understood, and physicians are constantly treating pelvic abscess with local applications, electricity, etc., sometimes suspecting the true condition, at others, mistaking it for some other condition, such as tubal pregnancy, for instance, as has been done lately by one of the most prominent advocates of the electrical treatment for extra-uterine pregnancy in this country. Where an intestinal obstruction, an appendicitis, an inflamed tubal condition, a penetrating wound of any of the viscera, a tumor, or any of a dozen other troubles are found, they should be dealt with according to our present surgical light. In such cases as these, peritonitis is not a disease, but merely a symptom, and when the original cause is removed the trouble subsides at once. Often the mere opening of the abdomen, together with irrigation and drainage, is sufficient. This seems especially to be true of those cases of tubercular peritonitis, so many of which have lately been springing up, and to which I called your attention in my paper on "Exploratory Laparotomy" last spring. Then I was able to show that six deaths from various causes had taken place out of 36, collected in Germany, and only one death out of 17 cases which I had collected in this country. This death was due, not to the operation itself, but to defects in the details of the operation. In all these cases irrigation or drainage, or both, followed the operation, and seemed all that was needed to effect a permanent cure. It is useless to take up your time by quoting cases—the literature is teeming with them, and almost every journal picked up contains a lesson.

To sum up the conclusions of this brief paper, I should say that when called to attend a patient suffering with peritonitis, we should first determine the cause, and if it is found to be an organic one, the immediate use of the knife, followed by irrigation and drainage, is the only proper method of procedure.

Should the cause be found to be functional, the use of purgatives, followed, if necessary, by enemata, are indicated; and these failing to relieve quickly, surgical measures should soon follow.

If the case is of doubtful character, I would be inclined to first try the purgatives, and stand ready to interfere with the knife at a moment's notice.

Of course, it is impossible to lay down any absolute general rules for the treatment o

every case, as each and every one must be a study of itself; aud yet, as nearly as such rules can be laid down, the above seem to me to be the proper ones.

ALLEGED CURE FOR TUBERCULAR MENINGITIS.—Tubercular meningitis is regarded as one of the most hopeless of maladies, but an Italian physician has reported five cases of the disease successfully treated by inunctions of iodoform ointment applied to the shaven scalp. He thinks that while mistakes in diagnosis are always possible, and some of his cases may have been the simple form of meningitis, it is not likely that he was in error about the whole five, and that therefore he must have actually cured the disease. This is the more likely because Nilsson reported a like result some three years ago, but as his observation was confined to a single case the evidence of benefit was not very strong. The action of iodoform locally used is supposed to be through its decomposition, and the liberation of iodine which is absorbed and carried to the meninges. The ointment used is composed of one part of iodoform to five of vaseline, half a drachm being rubbed into the scalp daily.—*Northwestern Lancet.*

CASCARA SAGARDA IN RHEUMATISM.—Dr. Brown, of Louisiana, reported two cases of rheumatism (*N. O. Med. and Surg. Jour.*) in which half a dram of fluid extract of cascara sagrada given exery four hours, gave prompt relief and effected a cure in four and six days respectively-

Iu most cases the doses given by Dr. Brown produced active diarrhea. Dr. H. A. Cottell, of the *Amer. Prac. and News*, obtained marked good results in two cases, by giving 15 minims three times a day. In a case of lumbago in which other remedies had failed, cascara gave prompt relief.

In some cases of chronic constipation this drug gives excellent results, while in others it utterly fails.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, DECEMBER 8, 1888.

VENESECTION IN PUERPERAL ECLAMPSIA.

Dr. Thompson reports a case in the *Brit. Med. Journal*, in which a woman was delivered of a child and the following day was seized with convulsions. Bromide of potassium, hydrate of chloral,and chloroform were used but the patient had seventeen fits within twelve hours, during the latter four of which she was continuously unconscious. At the end of this time Dr. Thompson gave one-fourth of a grain of extract of elaterium and five grains of calomel, and drew off fourteen ounces of blood from the arm. After this only one fit occurred, and the patient became conscious in six hours. The urine contained about one third albumen. Patient recovered.

Dr. Buxton also reports a case in which the eclampsia seizures came on in a quarter of an hour after the expulsion of a placenta. The patient remained unconscious for thirty-six hours and had upwards of sixteen seizures. After administering the usual remedies with but little effect, twelve ounces of blood were taken from the arm; the convulsions were moderated and ceased within an hour. Nutrient enemata were given while the patient was unconscious. Urine showed one-sixth albumen. The patient made a good recovery.

OVARIAN TUMOR WITH TWISTED PEDICLE.

There seems to be a decided difference of opinion among recent writers as to the advisability of opening the abdominal cavity

while the peritoneum is actually inflamed. Dr. H. H. Mudd, of St. Louis, says that death is almost certain to follow.

Dr. Smith reports a case in the *Brit. Med. Jour.*, of an ovarian tumor with twisted pedicle in which death occurred a few hours after the removal of the tumor. The peritoneum was much thickened and velvety. In this case the shock which followed the operation must have been in a measure due to the general condition of the patient. As pathological changes in various organs were found post-mortem that were of themselves sufficient to have caused the death of the patient in a short time.

The Classification of Fees.

The *Med. Rec.* says that the Russian authorities have tried to "size up" officially the different classes of patients and prescribe the exact amount that each class shall pay for medical services.

Their classification is as follows: The first and highest-priced class are capitalists, owners of real estate, merchants of the first rank, manufacturers, civil officers of the first to the sixth class. The second category includes civil officers having an income of over one thousand rubles, merchants of second class, agents, drummers, teachers. The third class includes everyone else.

Such a law precludes the possibility of physicians rendering bills based on the kind of service rendered. It assumes that the services of one man who practices medicine is worth as much as another.

A prominent physician in Kentucky divided his patients into two classes—those who paid full fees, and paupers. This enabled him to collect more money for his services than he could have done otherwise but it was manifestly unjust to some of his clientele. As a rule the poorer class of patients are better off when they are made to pay a moderate fee for medical services when they are unable to pay full rate.

In Los Angeles, Cal., no one is permitted to practice medicine till he has signed a fee bill and takes oath that he will abide by it. This prohibits his charging less than a certain rate, but does not limit him in placing an estimate on his own services. The custom is to collect at the time the service is rendered.

Substitute for a Thumb.

In a case in which the thumb of a hand was lost, Dr. Lauenstein, of Germany, divided with a chain-saw the metacarpal bones of the index and little fingers,and rotated the fingers toward the palm of the hand and fixed them with suitable splints. The tips of the rotated fingers met when bent and the patient could hold, with them, small objects. Now that artificial limbs are made in such perfection it seems possible that a thumb might be adjusted to such a hand that would be more useful and certainly more pleasing to the sight than the one described by Dr. Lauenstein.

Medical Drummers.

According to the *Med. Reg.*, Philadelphia, like most of our large cities, has "shysters," known by some as "medical drummers." The *Register* intimates that one of this guild called upon a patient, (who some years ago had discarded him for one more to her liking), apparently for the purpose of securing an engagement to attend the lady in confinement, and as an inducement offered to bring her through the approaching labor safely and painlessly by anticipating nature—introducing a rubber tube into womb two weeks before term and using chloroform to prevent pain.

The proper place for such a man is the state prison, and yet there is many a one no better, who is doing a thriving criminal business under the assumed authority of a physician.

There is a class of men more correctly known as drummers. For a number of years it has been the custom of some of the practitioners at Hot Springs, Ark., to employ men to "drum up custom" on the incoming trains. Such practice places medicine on a mercantile basis. Those who engage in it, sacrifice pro-

fessional standing, and "practice for revenue only." Not all the physicians at Hot Springs are so myopic in viewing their own interests. I was glad to have the pleasure of meeting one who is worthy of the confidence of the profession, and I learn there are a few others there.

St. Louis is not altogether exempt from the drumming business, which has the same effect upon professional standing that flaming cards in the secular press have.

Drummers are to be pitied, while "shyters" should be punished.

Picrotoxin.

The *Physician and Surgeon* says that picrotoxin is one of the best remedies for night sweats of consumption. One dose of one-sixtieth or one-eightieth of a grain taken at night generally prevents perspiring for several nights.

Now and then cases are encountered in practice in which the elixir of vitriol oxide of zinc and other well-known remedies fail outright to control colliquative sweats and the physician is at a loss to know how to check the rapid reduction of his patient's strength. In such cases, even so powerful a drug as picrotoxin is welcomed as a remedy.

The last edition of the U. S. Dispensatory says this drug has been used with asserted excellent results in night-sweats, but that its "physiological action does not indicate that it is of practical value, and we know of no reason why it should have been introduced into the pharmacopeia.

Death of Dr. H. B. Sands.

Dr. Sands died from sudden heart failure, while on his way home from a professional visit in company with Dr. A. A. Smith. The *N. Y. Med. Jour.* says: "For many years Dr. Sands had been generally recognized as the leading surgeon in New York, astute in diagnosis, sound in judgment, and dexterous as an operator."

On another page (622) will be found an article on membranous croup by Dr. J. M. Armstrong, of Coalsburgh, Alabama, which was received in the form of a letter. The picture therein presented by the doctor of his first case of croup is so strong and vivid as to well repay reading.

Believing that free discussion is the best way to secure light upon dark subjects, the letter is published in its entirety. Dr. Armstrong presents some strong points in favor of the duality of membranous croup and laryngeal diphtheria.

NOTES ON GENITO-URINARY SURGERY.

BY BRANSFORD LEWIS, M. D.

Of late Parisian surgeons have been discussing with great fervor the question as to the advisability of using the Peterson rubber bag, in connection with the operation of epicystotomy. Several condemn it roundly, MM. Rontier and Nicaise have each reported rents in the rectal wall, caused by the distended bulb, thus bringing the record of such accidents up to five or six.

In the case of M. Nicaise the tear occurred after 340 gms. (11 oz.) had been injected into the pouch, and 280 gms. (9 oz) into the bladder, not an excessive quantity by any means. The operator accounted for the break on the theory of lack of distensibility of the rectal wall, which he thinks varies greatly in different cases.

M. Auger expressed his wonder that any one would use a Peterson bulb after seeing a catheter arrangement invented by himself for the purpose of elevating the anterior wall of the bladder.

M. Despres offered as an objection to the employment of the bag the fact that it will sometimes push the bladder to one side instead of upward, thus exposing the peritoneum to the danger of being opened.

Marc See prefers to use the ordinary sound to push the bladder wall before it.

In the *Med. Rec.*, Nov. 10, is a report by

Dr. C. W. Cutter, of a case of undoubted gonorrheal infection of the mouth, occurring in a young woman. After 24 hours incubation she noticed a horrible taste of the saliva, and her mouth felt raw and dry; next, little sores appeared on the lips, and on the third day the gums and tongue became swelled and painful, and later, the whole mouth was so inflamed that she could not eat. A whitish fluid, mixed with blood, having a bad odor and taste was secreted. The reddened and inflamed lips were denuded of epithelium in places, and there were patches of false membrane.

Local applications of glycerine and bismuth subnitrate, together with a mouth wash of chlorate of potassium relieved the patient to a great extent, when she was lost sight of. She received the infectious material directly from a sailor, the subject of gonorrheal urethritis.

The second successful nephrectomy done for a hydatid kidney, is now placed on record by Dr. A. Knie, (*St. Petersburger Med. Wochenschrift*).

The operation has been performed for the same purpuse three times before this, but only one case, that of Boeckel, terminated in recovery. None of these were diagnosed before the operation; Dr. Knie, therefore, has the honor of being the first to make the operation on such a case, the condition having been previously diagnosed.

The patient, a boy of two years of age, was very anemic,but possessed a moderate amount of adipose tissue. The left side of the abdomen was filled with a tumor about the size of a child's head. It was smooth, distinctly fluctuating, was not adherent to the abdominal wall, and did not accompany the movements of the diaphragm. Below and to the right, the tumor had sharply defined margins, the upper border being covered by the costal arch. Percussion gave absolute dulness, which extended to the splenic region. Auscultation was negative. No mention is made of the oft repeated hydatid thrill. Temperature, 37° to 37.4° C.; pulse 90-100. Urine acid, containing no albumen; quantity for 24 hours 550 cc.

Apropos of a discussion which came up at one of the sittings of the last meeting of the Mississippi Valley Medical Association regarding the percentage of mortality following nephrectomy, it may be mentioned that statistics of that operation (performed for various renal affections), collected by Dr. Chas. Baum, give, in 63 cases, 44 recoveries and 19 deaths, a mortality of 30.16 per cent. Of 57 cases in which the form of incision was stated there were 34 lumbar operation of which 25 recovered, 9 died, mortality 26.47 per cent.

Of 20 abdominal sections, 16 recovered, 4 died, mortality 20 per cent.

Statistics therefore decidedly favor the performance of nephrectomy in certain progressively destructive lesions of one kidney.

Dr. I. N. Danforth gives in the *Jour. Am. Med. Assoc.* the following as a classification of the causes of cystic kidney:

I. Diathetic causes:

a. Excess of saline elements of the urine.

b. Tuberculosis.

c. Carcinoma.

II. Congenital causes:

a. Migratory kidney with consequent twist of the ureter.

b. Congenital hydronephrosis.

c. Congenital degeneration of the glomeruli.

III. Mechanical obstruction consequent upon disease of the pelvic organs.

IV. Traumatic causes.

V. Pathogenic cysts.

a. Dermoid.

b. Hydatid.

c. Cystic metamorphosis.

An interesting variety of cystic degeneration of the kidney is that rare affection, intermittent hydronephrosis, concerning which Herr Landau read such an instructive essay before the Berlin medical society lately.

The term used is confined to those cases of hydronephrosis in which the sac empties and refills at varying intervals. After mention-

ing such possible (and substantiated) causes as intermitting pressure of neighboring tumors on the ureter, or spasmodic contraction of that organ, he dilates on the more frequent causes, such as he found in the cases which came under his observation, bending or twisting of the ureter, and its origin from the kidney at an acute angle—all of which pathological conditions Cohnheim has clearly demonstrated. When the caliber of the ureter is obstructed by a bend or twist from mobile kidney or otherwise, the urine becomes dammed up, backward pressure on the pelvis results, and remains until the patient lies down or assumes some position that will allow of the outflow of the urine.

Eventually, with the continual repetition of this process, the renal pelvis loses its elasticity, dilates and the cystic evolution is begun.

Where it arises from an acutely angled origin of the ureter, the morphology is explained in the following way: The urine accumulating in the pelvis when the body is in a favorable position compresses the walls of the ureter, shutting off its own avenue of escape in a manner similar to that by which a regurgitation of the bladder contents is physiologically prevented.

Temporary relief may be afforded by emptying the sac by kneading, maintenance of the proper decubitus, bandaging, etc. Before considering the propriety of extirpating the kidney, two methods are recommended for employment—either that of creating a renal fistula—which gave a radical success in one case and a palliative one in another in Dr. Landau's hands—or the operation recommended by Hahn for floating kidneys, *i. e.*, the sewing of the organ high up to the ribs, so that the renal pelvis will always be higher than its outlet. —*Deutsche Med. Zeitung.*

Dr. Auguste Ollivier, during last summer, made some observations which clearly establish, it would seem, the contagiousness of a form of vulvo-vaginitis of infancy. At l'Hopital des Enfants Malades, two little girls were received, their only affection being a vulvo vaginal inflammation with discharge. They were under treatment about three weeks, when the same affection began to spread among the other little patients, all of whom had been perfectly free from any such complaint up to that time. Fifteen in all were attacked, their ages ranging from three to thirteen years. After orders for strict cleanliness and thorough precautions against transferring germs or infective material from one child to another were carried out, no new cases developed.—*Bul. de l'Acad. de Med.*

The Southern Surgical and Gynecological Society meets at Birmingham, Ala., December 4, 5, 6. Many of the leading men throughout the Southern States will be present at this meeting.

The *Lancet* says that twenty-six per cent. of epileptics have been found to have asymmetry in the color of the irides. This asymmetry is said to denote that the possessor is of the neuropathic class.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Nov. 17, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Pritchard, M. D., Secretary.

Dr. Dalton.—It will be remembered that some months ago I presented to the society a specimen of abdominal aneurism of the aorta. I present to night an aneurism of the thoracic aorta. Like the former, it is of the sacculated variety and was attached to the vertebral column, eroding and destroying a considerable portion of the bodies of the vertebræ.

The aneurism was just at the commencement of the descending aorta and extended from the second to the fifth dorsel vertebra inclusive. One week ago, when the post-mortem was performed, the opening between the aneurismal sac and aorta was circular in form, and was three and one-half or four

inches in diameter. The sac at the time would have held eight or ten ounces of water.

The aorta from the heart to the iliac arteries is ateromatous. It is very much dilated throughout, showing, what is termed a fusiform aneurism. There is a pouch-like enlargement of the aorta just at its commencement, and really looks as if it also might be an aneurism. By holding it between you and the light, you will discover that the walls are very much thinner at the bottom of the pouch.

The history of this case is as follows: J. J., American, æt. 50, admitted to hospital Nov. 5, 1888. Had been in the institution twice before, once for rheumatism and once for burns. His health had been most excellent until three weeks before admission, when he caught cold, after which he had a slight fever and was greatly annoyed by a severe, hacking, dry cough, which was unaccompanied by expectoration. He presented a robust appearance, was able to be about the ward, and did not complain of the least pain in the chest. His appetite was lost, bowels constipated, urinary secretion normal.

On the 8th, three days after admission, his breathing became more labored, cough tighter and dryer. This grave condition was followed by a paroxysm of intense dyspnea and orthopnea. Face became livid, pulse extremely hard and full and about 110 per minute. One drop doses of a one per cent alcoholic solution of nitro-glycerine given every hour, and morphine, gave considerable relief: the nitro-glycerine being used with a view to lowering the blood pressure.

On the 9th, at 2 P. M., he was seized with another paroxysm far worse than the first. Death was imminent. Respirations were extremely stridulous, cold perspiration bathed his forehead and face. Pulse was hard and tense. The face and lips were cyanotic. He had to assume the upright posture in order to breathe at all. A pint of blood was taken from the arm which gave great relief. Sibilant rales were everywhere present in the lungs. A few moist rales were heard over the right lung. He was allowed to breathe the fumes of peroxide of hydrogen in hot water, an ounce to the pint, as it was thought he would get an excess of oxygen in this way.

Drs. Tuholske and Hermann, who were in attendance upon the post graduate clinic, saw the patient in consultation with us. We were unable to arrive at a diagnosis. There were a few moist rales in the lungs to suggest edema, and the laryngoscope showed that there was no edema of the glottis. The left vocal cord was, however, paralyzed.

I listened particularly for the bruit after the second sound of the heart, which is said to indicate aortic aneurism, but failed to get it. The bruit was not heard because the aneurism was situated in front of the vertebra, the man's back was very fleshy and the sibilant and other obscuring respiratory sounds, prevented. I stated that I believed that the difficult breathing was due to some tumor in the mediastinum pressing upon the trachea and the recurrent laryngeal nerve. That this nerve was irritated was attested by the paralyzed condition of the left vocal cord. He died from exhaustion five days after entering hospital.

The unique feature of the case is that the man was in apparent perfect health up to three weeks before admission to the hospital, and was doing heavy quarry work which involved the lifting of heavy weights.

The post mortem, two hours after death, showed the heart very much hypertrophied; the valves, however, were intact. There was a large accumulation of sero-sanguinal fluid in the right bronchus and in the smaller bronchi, doubtless due to the obstruction to respiration.

Various causes are assigned as producing aneurism, syphilis, rheumatism, gout, kidney diseases, alcoholism, heredity, etc. I presume the rheumatism from which the patient had previously suffered might be the cause in this case.

I have brought with the aneurism, a section of the vertebra so as to show their relations.

Dr. W. Townsend Porter.—In the case of

aneurism the specimen of which I presented to the society a few nights ago there was such marked pressure upon the trachea that if the death of the patient had not occurred when it did, rupture into the trachea might have taken place. If I understood Dr. Dalton aright he said the only murmur to be heard which indicated aneurism was the murmur after the second sound.

Dr. Dalton.—I said I listened for it as it was said to be diagnostic.

Dr. Porter.—Was there any murmur heard?

Dr. Dalton.—Nothing to indicate any trouble of the heart.

Dr. Porter.—It is certainly most common to have systolic murmur and not diastolic, in fact the diastolic murmur in such cases is rare in dilated aorta. It is usual to find the aortic second sound accentuated.

Dynamic pulsation of the ascending aorta is rare; but dynamic pulsation of the abdominal aorta is so common that every gentleman present must have seen one or more instances. Dr. Dean will recollect the case of a man who fell from a swinging stage while painting. He broke a good many bones and among them there were compound fractures of both femurs. He was not expected to live, but he did, and subsequently broke one femur again. This man developed pulsation in the course of the abdominal aorta, with a systolic bruit. For a number of days he was supposed to have an abdominal aneurism, but the subsequent course of the case did not sustain the diagnosis; I think it was probably an instance dynamic pulsation.

Dr. W. Townsend Porter read a paper: "Remarks on the Pathology and Diagnosis of Gall-Stones with Reference to their Treatment with Olive-Oil."

Dr. Dean.—I don't think I can add anything material to what the doctor has said. His paper meets my views. I know of the revival of the treatment, and I think Dr. Touatre of New Orleans reported in his own case that he took a considerable quantity of olive oil and passed something like sixty gall stones; afterward he had a relapse of biliary colic and took olive oil again and passed eighteen stones. I am not satisfied they were gall-stones.

I have recently had a case in consultation in which the attending physician confirmed her diagnosis, as she thought, by obtaining gall-stones in the stools after administering olive oil. But she did not save them, and I suspect magnesium and calcium soaps were passed instead. I agree if the oil is useless in these cases, it should not be used by scientific physicians, for it countenances error and inculcates a domestic treatment it will be hard to get the laity rid of. I have tabooed several so-called, special remedies in my practice for years, for the reason that their use tends to cultivate and continue erroneous impressions with the laity. For instance, in the opinion of a great many people, sarsaparilla is a very valuable remedy; almost every physician is expected to prescribe it; and they think he does not know his business if he does not prescribe it; so also the physician who does not prescribe cranberries in erysipelas; or goose oil as an especially valuable oil. If my patients speak of sarsaparilla I tell them it is of no particular value; it is a pleasant vehicle for other remedies, but I do not give it for the reason that I would be cultivating in these people the idea that it is valuable, and encouraging the sale of worthless, costly sarsaparilla noctrums. I also agree with the doctor in reference to there being no retrograde movement in the ducts after the stone has passed the distance which he suggests unless the periphery of the stones is lessened by solution in the bile, which may occur with cholesterine-stones when the bile is not saturated with cholesterine. There have been some cases cited by physicians of eminence, on the course of gall-stones, that one can hardly credit. One quite eminent physician declared that a gall-stone had found its way into the urinary bladder. I think it probable this was a urinary stone. We understand how ulceration may occur and we find gall-stones in and about the appendix vermiformis, in the peritoneal cavity, and so forth. I think, by the way, we should also

taboo the hybrid term appendicitis, used by one speaker this evening. One case of gall-stone has been reported in which the stone was nearly the size of an ostrich's egg; showing the great extent to which the gall-bladder can be distended by stone.

Dr. Prewitt.—I fully agree with Dr. Porter in his excellent paper as to the uselessness of olive oil in the condition to which he refers. The idea of lubricating the ducts is a perfect absurdity. There can be no such passage backward into the duct, of the olive oil. I fully agree with the doctor that we can not make a definite diagnosis of gall. stone unless we subsequently see the gall-stone. In many cases we fail to get that because the parties interested fail to look over the stools carefully. I advise my patient to take a fine wire sieve and pass the whole stool through it after dissolving it in water, and if gall-stones are present they will be caught in the sieve. Where we have an obstruction of the gut attended by colic we can say with a good deal of certainty that, if there is jaundice,it is an obstructive jaundice, but we can not say positively that it is due to gall-stone. Operations have been done where there was no gall-stone found, and yet there were all the symptoms except the finding of the gall-stone.

I am not satisfied as to the possibility of the gall-stone dropping back into the cyst. I recollect a patient whom I saw some years ago, who suffered intensely and got better and had another attack and did pass gall-stones. Now whether in the first intance the gall-stones were passed and not observed I do not know, but where the gall duct is very considerably dilated from the cyst side, I don't think it is impossible, although I think it improbable. I doubt exceedingly that any gall-stone the size of a hen's egg ever passed through a gall duct. A case came under my observation a few years ago where a lady was suffering,and a very intelligent physician who saw the case, made a diagnosis of gall-stone colic. Subsequently there developed symptoms of obstruction of the bowels. I was called to perform laparotomy. The woman declined an operation, and died. On making a post-mortem we found in the ilium, a gall-stone nearly as large as a hen's egg, that had passed down the bowel, which at the point of obstruction was a little narrower than elsewhere, and plugged it up like a cork, producing absolute obstruction. That gall-stone had not passed through the duct, but had passed from the gall bladder into the small bowel the walls of both having been ulcerated through. The immediate cause of death was the extravasation of the contents of these viscera into the peritoneum.

Dr. I. N. Love.—So much evidence has been recently given as to the worthlessness of olive oil in the treatment of gall stone colic that I have come to the conclusion that it is of no value in this trouble. I can readily believe that olive oil might be of service in assisting to clear out the alimentary tract, but as the doctor has well explained, so far as its lubricating the bowel is concerned, for anatomical reasons I think the idea is absurd. I think hot water has a most admirable effect in all spasmodic affections in the neighborhood of the stomach or intestinal canal; in such cases hot water at both ends is of great value. I have seen a number of cases of acute, intensely painful colic relieved without any other agent than large quantities of hot water taken into the stomach. The pain that accompanies these attacks,whether they be caused by gall-stones or not, or whether it may be, the longer it is continued the more dangerous it becomes; any excruciating pain long continued is dangerous.

The use of chloroform for the relief of pain in the passage of gall-stones is certainly indicated. Those who have administered chloroform in labor know that it relieves the suffering but does not interfere with the contraction of the uterus. If the pain (in gall-stone colic) continues long, rather than continue the chloroform, I should give paralyzing doses of morphine—overwhelming doses of morphine hypodermatically.

Dr. Graves.—The use of the stethoscope is a valuable means of making a diagnosis when the gall-bladder contains two or more stones.

By placing the stethoscope over the site of the gall-bladder and palpating the region, a crackling sound can be heard, if stones be present.

Dr. Stevens.—I agree with the conclusions of the author of the paper on scientific principles, though I have had no personal experience in use of olive oil. There is one point which I would like to offer for consideration; that is a possible physiological action of olive oil upon the hepatic secretion. We know that if we introduce into the stomach an indigestible body a certain amount of secretion is started up, but the amount is not equivalent to the amount started up by the introduction of a digestible body, so the introduction into the intestine directly, or through the stomach,of a substance which it is the duty of the bile to alter for the use of the body, might start up a marked hepatic secretion.

It is a matter of wonder to me that so much saponification should take place on the introduction of a certain amount of olive oil, when the saponification is very limited in normal conditions, being very slow, and the object being to aid the other elements in the secretions, hepatic and pancreatic, and the emulsification of the fat. To saponify a certain amount of fat would require a good deal of alkali which must come from the pancreatic or hepatic secretions, or both. Moreover, there are certain cases reported, of supposed hepatic obstruction, with enlarged gall-bladbers which were easily marked outside, and on the administration of olive oil the obstruction apparently was raised and large amounts of bile were found with a lining of these materials, practically of soap, were found in the excretions. The fact that a large amount of alkali was required to saponify the fat led me to suppose that there was an increased secretion of bile produced by the administration of the olive oil.

Dr. Edward Borck.—I was very much pleased with the paper. The practical point in it was whether the olive oil was made to enter the hepatic duct, and the doctor found that it was not.

Dr. Porter.—I ffnd it necessary to take exception to some of the statements made by the gentlemen who have been kind enough to criticize my paper. In the first place, as to the size of the gall-stones which may pass the common duct or the cystic duct. I have no personal experience or pathological observations to offer in regard to this matter, but I can offer the experience and statements of a man who was one of the foremost pathologists who ever lived; I refer to Rokitansky, in whose great work is the statement that a gall-stone the size of a hen's egg has been known to pass.

Dr. Bond.—I will state that in a post-mortem in a case of jaundice which had lasted a number of years, I found a gall-stone larger than a quail's egg which had apparently escaped from the gall-duct into the bowel.

Dr. T. F. Prewitt.—I would like to ask Dr. Porter if Rokitansky makes the statement explicitly that post-mortems have shown that there have been gall-stones as large as hen's eggs passed through the duct, or if he simply says they have have been passed by the bowel. Iam still of the opinion that they did not pass through the gall duct.

Dr. Beggs.—Professor Ort mentions gall-stones as large as hen's eggs which have passed through the the gall-ducts.

Dr. Porter.—The statement made by Rokitansky, is that gall stones as large as hen's eggs have been known to pass the cystic duct. This statement is found at the conclusion of an elaborate article in which he mentions at some length cases in which gall-stones have ulcerated through into the bowel.

It seems to me that the question whether gall-stones may enter the cystic duct and set up paroxysmal pains and again return into the gall-bladder is a very important one. If this is so, many cases will occur in which gall-stones, large ones, will be searched for, one or two days, and the search then given up. The failure to find them will be accounted by the theory that the gall-stones fell back into the gall bladder, and one can readily see the confusion that would result in recorded cases.

Dr. Lutz.—I would like to ask the doctor on what other theory he could account for the existence of a single gall-stone in the gall-bladder after an attack of colic except on the supposition that it partly passed into the duct and returned. I have seen a number of cases of gall-stone where a single stone existed with hepatic colic. In one case, the last one I operated on in September, the trouble had existed for three years, the attack coming on every two months, sometimes every month, and no other gall-stone was found and there was no evidence that any other had existed, yet it was associated with characteristic gall-stone colic.

Dr. W. T. Porter.—Concerning the presence of characteristic hepatic colic in cases such as Dr. Lutz deseribes, so far as I have been able to find from a tolerably extensive reading of the literature on the subject, this is an entire mistake. There is never characteristic gall-stone colic from gall-stone which merely impinges on the margins of the opening of the cystic duct, even when ulcerated. We then have the pain which is like that of stone in the urinary bladder, we do not have paroxysmal piercing pain, the genuine gall-stone colic. Besides such cases cannot be diagnosticated without either an exploratory puncture or laparotomy. The weight of every authority who is sufficiently experienced to be considered authority is in favor of the statement which I have quoted from Trousseau, that gall-stone colic cannot be diagnosticated unless a stone is found in the feces, after an attack of paroxysmal pain with or without jaundice.

SELECTIONS.

SURGICAL TREATMENT FOR LACERATIONS OF THE PERINEUM AND THE PELVIC FLOOR.

BY DR. WM. H. WATHEN,

Professor of Gynecology in the Kentucky School of Medicine. Chairman of the Section in Obstetrics and Gynecology in the American Medical Ass'n., etc.

Dr. Wathen spoke especially of the surgical treatment of lacerations or injuries of the muscular and aponeurotic structures that form the floor or diaphragm of the pelvis. He said that there was probably no other subject in gynecology about which so much had been written that was of no real value, and that a relatively simply operation had been made to appear so complicated that it was seldom correctly performed. He stated that the muscles and the fascia in the perineum gave it strength, and when they were lacerated no operation that did not primarily tend to reunite them was logical, or would be followed by permanent good results. We might have prolapsus of the uterus, with rectocele and cystocele, resulting from subcutaneous rupture of these structure, with no laceration or injury of the membrane or other parts of the perineum. This condition was usually diagnosed by the attending physician, and the woman was subjected to various plans of treatment to hold the parts in position and relieve the annoyance from pressure, weight, etc., all of which give but little relief; nor could we cure her except by an operation to bring together and reunite the torn ends of the muscles and fascia. For if any of the perineal muscles or the fascia be lacerated, unless at once united and held together, the muscular contractions continued to widen the distance between the torn ends, so that the vulva gradually became enlarged laterally. The extent of this lateral separation was governed by the degree of laceration and the length of time since it occurred. If the above was correct, then no operation would succeed that failed to bring these torn ends together so as to reunite them. This was a simple question that held good in all operations to restore the perineum in complete or incomplete ruptures; and if we were controlled by it, and were familiar with the technique of the operation, success would nearly always crown our efforts. The author did not know of any operation that was not faulty in this particular, but the operations that accomplished this purpose best were those performed by Tait, Duncan, Simpson, Langenbeck, Saenger, Aart, and Barbour; yet, if he understood their methods correctly, they

did not fully appreciate she importance of dissecting up and uniting the muscles and fascia. This could not be done by the usual methods of denudation, but was accomplished by a splitting process. The incisions should go deep near the anus on the lateral borders of the vulva, and the recto-vaginal septum should be split through the connective tissue between the vaginal and rectal layers, so that the vaginal flap might be thick enough to prevent sloughing.

Dr. Wathen did not think it necessary to give the reasons why the primary operation should be performed, as there were but few men of recognized ability in obstetrics or gynecology who were opposed to it, and it was not a little surprising to find in this list the name of the distinguished professor, A. Charpentier, of Paris. His objections were illogical, and were not sustained in actual practice where the operation was correctly done. He (Dr. Wathen) had performed the primary operation often without a failure; in fact, he thought the success was usually more perfect than in the secondary operation. The torn ends of the muscles and fascia were now easily held in apposition, and they united within a few days. He reported a typical case upon whom he operated a few weeks ago for his friend, Dr. ——. The woman, when sixteen years old, was delivered of a large child, and the perineum was torn through into the rectum for over an inch; the vaginal wall and the connective tissues were also torn two inches further up. The operation was done about an hour and a half after delivery. He used about fifteen sutures in the vagina and the perineum. The vaginal tear was united by silk sutures, and the perineal by a silver wire and silkworm gut, using only one silver wire as a base suture to hold together the ends of the sphincter muscle. The sanitary and hygienic surroundings were not good, and she had but little after-attention. She passed her urine, the vagina was washed out but a few times, and her bowels moved daily after the second day. At no time was there any pus, and the entire laceration healed by first intention. If the operation was well done he doubted the necessity of drawing off the urine or tying the legs. Nor was it necessary to wash out the vagina often. The urine and lochia were not poisonous, especially after ths second day, if strict asepsis had been observed in the operation. Where any form of an aseptic animal suture was used, the needle should be introduced and brought out just within the lower or external edges of the raw surfaces, so that when they were united the sutures would be concealed or buried in the tissues. Sometimes a few superficial sutures would be required. The sutures should be so introduced as to be entirely covered by the tissues, and to bring the surfaces into even and exact apposition. If the sphincter ani was ruptured, he always used the base suture after the fashion of Emmet. He did not destroy any tissue except jagged edges in some complete ruptures; the dissected part assisted in protecting the wounded surface against the dangers of infection from uterine or vaginal secretions, and also increased the thickness of the perineum. He had never had a recto-vaginal fistula after an operation for complete ruptures, nor did he believe it would often occur if the operation was correctly done after his method.—*London Lancet.*

ON LOCKING, RETROVERSION, AND STRANGULATION OF UTERINE FIBROIDS IN THE PELVIC EXCAVATION.

Dr. J. Matthews Duncan stated that locking in the pelvic excavation implied impaction not the result of adhesions. Its effects might be produced by pressure into the pelvic brim of a tumor too large to pass into the excavation. Retroversion of a fibroid closely resembled the retroversion of the gravid uterus in its characteristic form. The symptoms and treatment of the two conditions were nearly alike. Strangulation, with locking, of a fibroid, with or without retroversion, was a rare accident; a case was described. Dr. Duncan had not seen a similar case of strangulation of or by a gravid uterus.

A Case of Locked Fibroid Treated by Supra-Vaginal Hysterectomy.—Dr. Meredith reported a case. B single woman, aged 36, was admitted into hospitel last May. A uterine tumor was firmly impacted in the pelvic cavity. For nine months the pressure of the growth on the neck of the bladder had led to frequent attacks of complete retention. The recurrence of these attacks had latterly been avoided only by relieving the bladder at regular intervals of not less than two hours, both by night and by day. After unsuccessful attempts to dislodge the tumor from the pelvis by vaginal taxis, the case was transferred to Mr. Meredith's care, with a view to abdominal section. At the operation, performed by him on June 2, considerable difficulty was experienced in extracting the impacted mass, which, together with the uterine body and its appendages, was subsequently removed by supra-vaginal hysterectomy. The tumor weighed two pounds, and was of the size of a large cocoa-nut, and consisted of a densely-packed mass of fibro-myomatous growths developed in the posterior wall of the uterus. The after-progress of the case was uninterrupted, and the patient made an excellent recovery, leaving the hospital exactly six weeks from the date of operation with the abdominal incision soundly healed throughout. In the discussion on the above papers, Dr. Gervis drew attention to the usefulness of a suitable pessary in preventing a recurrence of the downward displacement of a fibroid after it had been pushed up out of the pelvic cavity. He felt satisfied with hydrostatic pressure in cases where the taxis had failed, noting a case in his own practice resembling Mr. Meredith's. Dr. Graily Hewitt found that upward pressure and properly adapted vaginal support often proved sufficient to relieve impaction. In some cases impaction of a large fibroid was slow to cause difficulty in micturition; in others that trouble rapidly set in when the impacted tumor was small. In a very marked case a fibroid growth at the back of the uterus occasioned sudden impaction with retroversion, and enormous distention of the bladder. Dr. Hewitt thought that cases of anteversion with hypertrophy of the uterus were sometimes mistaken for fibroids. In one instance proper diagnosis and appropriate treatment cured a case of this kind after several years of suffering. In another case, where an egg-shaped tumor grew anteriorly, a little to the right side, a well-adjusted pessary was very successfully used and the tumor raised out of the brim. Its pressure had rendered the patient a complete invalid. Dr. Lewers referred to a case where a uterus retroverted by fibroids caused retention of urine in a woman, aged 49. The urine was drawn off, and the uterus replaced bimanually; then a large ring pessary was introduced. This was done two months ago. Dr. Lewers had seen the case recently, and found the uterus in good condition; the patient had no trouble with her water. He mentioned this case because he gathered from Dr. Duncan's paper that, in similar instances, replacement, even when possible, was usually followed by recurrence of the malposition. Dr. Aust Lawrence (Clifton) found that in one case of retroflexed gravid uterus and in two of "locked fibroids" he was enabled to effect reduction by keeping the patient in bed in the semiprone posture for twenty-four hours. Without this kind of treatment, repeated attempts at replacement should never be made. Dr. Champneys advocated hydrostatic pressure exerted by gravitation. He had found it succeed where taxis had failed and he always used it after the failure of taxis before proceeding further. The mode of using it had been described in the *Lancet* some years back. It was conveniently employed by means of a child's air-ball connected with an irrigator. Any desired amount of even and continuous pressure could be applied and removed at will. A fibroid might be impacted for many reasons, such as bulk, edema, adhesions, and expansion of the broad ligament. An air-tight adaptation was an obstacle to replacement; in raising a tumor in abdominal section a loud sucking noise was often heard. Hydrostatic pressure got rid of some of the edema, adhesions could not be rudely torn, as by taxis, and the broad ligaments would be

unaffected. Thus the method furnished a valuable differential prognosis as to the possibility of replacement. He did not say that the tumor was replaceable in Mr. Meredith's case, but he should himself have tried hydrostatic pressure before resorting to abdominal section. Dr. Priestley remarked that Dr. Duncan's experience proved that, whether the pressure were made with the fingers or with hydrostatic bags as Dr. Champneys had suggested, and aided by the genu-pectoral position, difficult cases of impacted fibroid might be overcome provided that the pressure was made in the right direction for a sufficient period. Dr. Priestly thought that the alleged frequency of absolute impaction was overrated. The symptoms produced by pressure almost amounting to impaction were more frequent; these were retention of urine in certain cases, incontinence of urine in others. He had recently seen a patient who had a bulky fibroid, and was constantly losing large quantities of limpid fluid, supposed, at first, to be from the uterus, but ultimately proved to come from the bladder. Not only retroversion of a uterus bearing a fibroid could cause impaction, but also some forms of fibroid without backward displacement, particularly these avoid forms in which the lower segment fitted closely into the brim and cavity of the pelvis. He had sometimes been surprised how small a degree of force exercised in pushing up the tumor from below would bring at least temporary relief. Prolonged and persistent efforts, with every precaution, should always be made to reduce the tumor,as Dr.Duncan advocated,before so grave a method as abdominal section was undertaken, although Mr. Meredith's case had proved so signally successful. After some observations in reply by Dr. Matthews Duncan, Mr. Meredith stated that the absolute fixation of the pelvic tumor in his case, resisting all the repeated attempts to displace it, afforded ample justification of abdominal section as the only means of relieving the patient. In his case atmospheric pressure had not much to do with the difficulties which he encountered. After partial dislodgment of the firm, incompressible tumor from the pelvic cavity, extraction was found to be impossible until some amount of enucleation had been practiced on the left side. This fact alone proved conclusively that nothing short of operation could have proved successful in affording even temporary relief to the patient's sufferings.—*Brit. Med. Jour.*

CASE OF COMPLETE INVERSION OF THE UTERUS.

BY ABRM. LIVEZEY, A M., M.D., YARDLEY, PA.

But one case of this character have I seen in a professional experience of nearly forty-five years, and but one case of puerperal pelvic peritonitis, and I had fondly hoped that I might have laid aside my professional staff and ceased *é vivis* before such accidents incident to the parturient chamber should happen to me. Such, however, in the inscrutable ways of life and death was not to be my happy lot. I have seen one of each—only one, thanks to, to what? to provident care and foresight? Yes. Not to Providence, for such aid cannot be expected by a bungling accoucheur or unscientific skill. But to the case of inversion especially:

Mrs. H., aged twenty five, mother of three children, of Hibernian descent, was delivered in presence of three old women of a large infant, while upon her knees by the bedside with body mainly erect. She maintained that position, by consent of her attendants, trying to expel the placenta. A midwife attempted to assist her by pressure of one hand upon the abdomen, while she made traction upon the cord with the other. She felt it coming down, and encouraged the patient to make still fnrther efforts, when, lo! it did come down in truth, and the uterus, like a wet bag, inverted with it. Such was the brief history and condition of the woman when I saw her some time after. There was no unusual hemorrhage, and having dipped my hands in warm water proceeded to peel off the placenta very gently, and making an oblong cone of my three fingers and thumb proceed-

ed to replace the uterus by indenting the fundus in the usual manner directed by our authorities. This act seemed to excite contractile pains, and soon the organ very clearly proclaimed to me: "Thus far and no further" —a constriction of the fibres of the vaginal cervix, or of the parts above, arrested further progress. Well, here was trouble. I had two agents with me, however, that I could "swear by," in the emphatic vernacular, which never failed me to produce, or induce rather, relaxation of muscular fibres or tissues, namely, lobelia and gelsemium. I have faith in lobelia, and a belief in gelsemium, though neither have at first passed very current among our leading professors. But imbibing from the literal teachings of two of my accomplished scholastic professors, J. K. Mitchel and T. D. Mutter, to test, try, and prove all remedies brought to our notice even by old women in the country, I took hold of these two agents early in my professional career, and could not do justice to my conscience or patients by laying them now aside. But I must beg the reader's pardon for allowing myself to be switched off the main track; I'll return.

Rectal injections of infusion of lobelia—probably one to two drachms to the pint of boiling water—were administered, and 10 gtt. fl. ext. gelsemium by mouth, and I quietly,and with great confidence, waited twenty minutes, engaging in cheerful conversation to take attention and anxiety of the women from the case before us. I then ran my index-finger around the cervical portion of the vagina and thought I found the parts soft and ready to yield, and I commenced with my fingers again at the fundus and slowly, without hindrance, reposited the fundus away up in space—*in situ*, and, elevating the hips, gave ergot, which, with friction externally and internally, soon caused contraction. Following with mild astringent injections, carbolized, the patient did well. Tampons of marine lint, steeped in same, were introduced per vaginam and frequently changed. Now, I am foolish enough or bold enough to believe than lobelia and gelsemium will always do this work.

They will relax the stricture of hernia; they will make a stout muscular man, with a dislocation, as "limber as a wet rag;" these will relax spasms of any and all kinds; lobelia alone by rectum wlll break convulsions of children, unlock the jaws so you can give emetics, if need be, to unload the stomach of peanuts, green apple cores, and other indigestible substances, the *fon et origo* of the spasms; or calomel and santonine if worms be the cause. Why wait, in these cases, till the convulsions cease by their own free and sweet will, trying mustard, hot baths, etc.? Irretrievable ruin of the brain sometimes results from this waiting—the child never comes out of the convulsion. But I find myself again switched off the track and will so remain—*vale.—Med Reg.*

CHLOROFORM IN THE DENTAL EXTRACTING ROOM.

In our contemporary, *The Lancet*, a wordy warfare has recently been carried on concerning the use of anesthetics. In a leading article the editor lays it down as a law, that only ether should be administered in routine practice, and with this conclusion the majority of experts appear to agree. It is commonly acceded to on the other hand that thesurgery of the jaws and naso-pharynx needs chloroform, both on account of its more prolonged effect, and because it is less inflammable than ether. These rules may apply, and we believe they do to surgical practice, but they certainly need very considerable modification in the case of dentistry. As a profession, dentists see more of anesthetic practice than falls to the lot of general practitioners in medicine; and the result of the experience that the whole dental profession has been accumulating since the year 1844 is, that nitrous exide gas is by far the safest and best adapted anesthetic for dental work. This being so, it may asked, why is it necessary for the *Brit. Jour. of Dental Science* to insist upon what is a recognised truism in the profession. The necessity arises from the fact that medical men bringing patients to dentists, and

especially members of their own family, are prone to suggest "a whiff of chloroform" as a desirable preliminary to the extraction. It does not concern us to inquire why medical men prefer this agent for the purposes indicated, but it certainly does deserve our most emphatic condemnation since the narcosis obtained is not more satisfactory than when safer anesthetics are employed, and the risks incurred are in every case considerable. It has been demonstrated over and over again that an incomplete narcosis, such as for example follows the exhibition of chloroform, unless pushed to the loss of conjunctival reflex is far more likely to produce fatal results than is complete chloroformisation. As is well known, the fifth pair of nerves are in close connection with the nerves which are instrumental in the conduct of the vital processes. Thus it is very simple to account for heart failure occurring in operations affecting branches of the fifth pair. A certain amount of chloroform or any other anesthetic would, by lessening the control usually exerted by the brain centres over the peripheral nerves, enhance the reflexes conveyed along these nerves; and there is a stage of narcosis, in which volitional movements are abolished, and reflex movements, or control of movements as the case may be, are intensified, and control the movements of the heart, the circulation or contraction of the blood vessels, are especially prone to be injuriously affected in this seminarcotic condition. Jnst to make this clear, let us suppose a case. An individual is to have 4 teeth extracted, and to this end chloroform is administered; as he goes under the influence of this agent, at first his ideas become vague, then he has a sort of waking dream which induces him to struggle, later voluntary movement disappears,although he may feel pain he is unable to resist at this time, painful sensations will be conveyed along his sensory nerves producing effects in the receiving centres of the nervous system, thence the impulse becomes reflected through, the sympathetic nerves, and the heart stops beating. Now the individual may have had enough chloroform given to him to carry him just beyond the stage when the reflexes are active, so that during the extraction of, let us lay, the first two teeth, no prejudicial results occur. After this he recovers suffieiently for the reflexes to be again active, so that if any further extractions are attempted, he runs a grave risk of reflex paralysis of the heart. Hence we see the very prolongation of narcosis which its advocates vaunt for chloroform is in reality an unseen danger in its use. Laying these considerations to heart, we think dentists are fully justified in declining to extract teeth when the anesthetist proposes to administer chloroform. If any fatality follows its use, blame is sure to be laid to the door of the dentist as well as to the chloroformist. Two further considerations certainly confirm what we have above said; the one is, that the sitting-up posture, which is one usually preferred for extraction, greatly intensifies the danger of heart failure, and the other is, that it seems open to grave question whether a wholesale removal of diseased teeth or roots at one sitting is not highly prejudicial to the patient either from shock, hemorrhage or the extent of mucous membrane which is thus wounded and exposed to septic absorption.—*Brit. Jour. Den. Science.*

SPLENECTOMY FOR FLOATING HYPERTROPHIED SPLEEN.

BY J. R. NILSEN, M.D.,

Professor of Diseases of Women at the New York Post-Graduate School and Hospital.

I have delayed publishing these notes from my case-book to allow time to keep the patient under observation. As nothing new of interest has occurred in the case, and she has not been seen since eighteen months after the operation, I shall probably not gain anything by waiting longer.

Mrs. A. W——, aged thirty-six, married fourteen years, one child. The patient came to my clinic seeking relief from abdominal pains, which she describes as constant and general, sleeplessness, anorexia, menorrhagia, and constipation. She said nothing about "a swelling" until after it was discovered during

the examination. She showed a conspicuous lack of animation. Facies longdrawn and careworn; eyes hollow; skin puffy and dark below the eyes, without edema. Complexion unhealthy, ashen. She was poorly nourished and anemic. Tongue coated; breath foul. The lungs were sound; the heart irritable, with intermittent beat, and a mitral systolic murmur (anemic?). Liver slightly enlarged, not tender. Urine normal, except for a slight cloudiness from the presence of mucus. The appetite has been poor for years. She had had frequent nausea and vomiting after eating, and occasional epistaxis. Constant pelvic pains, especially on the left side, greatly aggravated at the approach of and during menstruation, which has occurred with fair regularity. Examination per vaginam revealed enlargement of the uterus and appendages, with great tenderness of all the pelvic organs. In the left iliac fossa a tumor, clearly mapped out, although the abdomen over its site is very sensitive. It is freely movable; can be pushed upward against the diaphragm. Its shape suggests an enlarged spleen; seems about eight inches long by four or five wide. Its upper margin quite sharp.

Close questioning elicits the history of severe attack of chills and fever twelve years ago lasting six months; also that for over ten years she has noticed a swelling on the left side.

By exclusion the diagnosis is limited to either floating kidney; much enlarged, floating, hypertrophic spleen; or some form of omental or mesenteric tumor, not adherent to any of the abdominal organs, unless possibly to intestines, although there have been no symptoms to warrant the supposition. Symptoms and signs betoken considerable pelvic congestion. By the aid of her history, and chiefly from the shape and mobility of the tumor, I finally arrive by exclusion at the diagnosis of dislocated, hypertrophied spleen. Patient at once put under active treatment for symptoms. No improvement, rather worse. Operation proposed.

Contraindications for operative interference:

1. The patient's general poor condition; the anemia; the condition of her heart.

2. Disagreement of most of the consultants.

Reasons for operating:

1. Confidence in the correctness of diagnosis.

2. The danger of the pedicle becoming twisted, leading to death of the organ by gangrene.

3. Constantly increasing pain and sense of weight in the abdomen.

4. The pain is greatest when lying down, wherefore she is deprived of the needful rest and sleep.

5. The abdomen is tender to slight pressure over the area through which the tumor moved, and this tenderness has of late been rapidly increasing.

6. The pain is dull and heavy for pressure upon the pelvic organs, and there is probably a constantly maintained or increasing congestion of the organs.

7. If so, this may lead to serious inflammatory troubles. But, even without acute inflammatory manifestations the congestion may be accompanied by or occasion plastic exudations, and if so, as in the case of more common forms of abdominal tumors, dangerous adhesions may be forming between the abdominal organs.

8. The spleen is not essential to life, as has been demonstrated before, other organs assuming either compensatory or vicarious functions where it has been removed. The percentage of recoveries after splenectomies for causes other than leucemia has been fairly encouraging.

9. Absence of leucemia. A week before the operation the blood was examined by Professor Satterthwaite, who found it normal.

Operation submitted to.—The patient was prepared by acting upon her bowels with licorice powder, and sulphate and citrate of magnesia for about a week. She was toned up with good food, digitalis and brandy, etc., and all the emunctories made active. During the four hours preceding the operation

enough brandy was given to stimulate her perceptibly. On the day before, by letting her, while in bed, raise her head to contract the recti muscles, I observed that the interspace between these diverged from the navel toward the pubis considerably to the left from the dark median line of the skin, and I took advantage of this discovery in making the incision.

The operation was performed November 21, 1886, with the kind assistance of Prof. Hanks and Drs. Dudley and Molloy. Ether was used.

I made the incision from a little below the navel, downward and about four and a half inches long. Considerable bleeding. Kolberle's clamps were used. No vessels were tied. Plastic formations in the parietes made the entrance a little slow. The anatomical "layers" entirely lost. A director was used with difficulty. The omentum long, lying over the right, its left edge only showing in contact with the right end of the tumor but not adherent to it.

It occurred to me right here that I had made the mistake of making the opening below instead of above the umbilicus, unconsciously, perhaps, influenced by the fact that others did not agree with me in the diagnosis. But for this I probably should have made the incision high, to get at the base of the pedicle and also lessen the possible chance of a subsequent ventral hernia. However, I knew that the pelvic organs were in bad condition and might need attention, and this influenced my choice.

The tumor, being the spleen, was lying as diagnosed, hilum posterior,and was tilted out right end first entirely free from adhesions, but followed by its pedicle, exhibiting a vein so large that the first impression was that a coil of the small intestine had in some way become incorporated with it. The artery was the size of an ordinary leadpencil, but the vein five or six times the size. The artery was straight, the vein varicose. There was very little tissue besides the peritoneal covering.

A heavy silk ligature was placed around the pedicle about three inches from the spleen, to test the tissues and the silk and to prevent spattering when severing the pedicle. Two of the assistants were asked to watch the pulse at the wrist on either side, and one of these had a clamp in position to grasp the pedicle above in case of cutting through of the ligature, which was now slowly tightened. The assistant on the right felt the pulse grow fainter at once, the one on the left noting no change. Eight or ten seconds after the maximum tension of the ligature was reached the assistant upon the right felt the pulse growing much weaker and the one upon the left now also noting a marked decrease in strength not in rhythm. No change in the respiration. The change in the circulation, verified by all present, became so marked that for a brief moment I considered the wisdom of cutting loose the ligature, and if this restored the circulation going no further, but fortunately I kept on. Brandy, ether, and camphor were injected under the skin, and in a few minutes the heart regained strength. (Since then I have noticed that the patient's pulse upon the left is much stronger than on the right side).

A heavy clamp was put on above the ligature; spleen, with about three inches of pedicle, cut away close below the clamp. Pedicle tied in two parts as high up as possible; clamps removed; stump trimmed; end of artery in stump tied with catgut; ligature ends cut very short and pedicle dropped back.

When the spleen was first lifted out I noticed a fair quantity of free fluid in the abdominal cavity. This I left there, expecting to act freely on the bowels after operation, and did not enter with a sponge. I used silk sutures for the wound, including in them the peritoneum,as I have continued to do in my operations ever since, although I now use silkworm sutures exclusively. I took particular care to unite the abdominal fascia with catgut, but did not treat the peritoneal edges similarly,as they rolled well together without it. The dressing was four layers of lint ten by six inches, impregnated with carbolized glycerine, and over this a thick layer of absorbent cotton covering the whole abdomen, and a flannel binder.

Before tying the pedicle it occurred to me, as it also was suggested, that by compression of the spleen a considerable portion of the blood in the gland might be forced back into the circulation and saved, but I desisted from so doing, not being certain of the condition of the parenchyma of the organ. It measured about seven and a half inches by nearly four and a half inches; two inches thick, and weighs a fraction less than two pounds. Time of operation, thirty minutes (guessed at). Owing to the shock I attempted no intra-abdominal examination of the pelvic organs.

She rallied soon from the immediate effects of the anesthetic. There was a tendency to vomiting for two days, well controlled by small doses of hot water every fifteen minutes and by occasionally causing the patient to fill her stomach with warm water or tea, which gave rise to free momentary vomiting but insured rest for one or two hours after.

She vomited a little blood now and then, and at such times complained of pain like needles piercing her side.

Two hours after the operation she suddenly began looking blue in her face, expressing at the same time a sense of great heat. Her pulse then beat at the rate of 108, but the temperature, taken by mouth, registered only 97.5°. The brandy taken before the operation may have had something to do with this. About six hours after operation temperature rose to 100.4°, the highest at any time. The only thing that gave us much trouble after this was her inability to pass urine unaided until the tenth day. The sutures were removed by the ninth day.

The stomach was rebellious for about two weeks, but after that she improved rapidly and grew fatter. The symptoms which marked her condition before operation reappeared now and then at irregular intervals, but gradually subsided. Sleeplessness and shooting pains remained longer than the other symptoms. The temperature rose to 100.4° about six hours after aperation, and for two days fluctuated between this and 98°. After this it did not reach 100°.

Having no home the woman remained in the hospital until Jan. 17, 1887, although she was well enough to be dismissed some time before that. She evidently became demoralized by the unwonted good care she had there received, and by the help extended to her after she left, for, although she improved steadily in appearance she refused even to try to work up to the time of her last visit, about eighteen months after the operation.

I was happily disappointed in not meeting with any of the grave sequences which I had been led to expect after the operation from the writings of Credé, Collier, Bryant, Spencer Wells and others. There was no secondary hemorrhage, no marked temporary anemia, no sudden enlargement of the thyroid or other glands, no perverted appetites or sensations, no apparent disturbance in the functions of glands and organs supposed to assume the functions of a lost spleen, in short there was nothing remarkable in the patient's condition while convalescing, except what is referred to above.—*Med. Rec.*

Effect of Lanolin on Micro-Organisms.—The results of Gottstein's experiments on this subject are thus given in the *Deutsche Med. Zeitung*, Berlin: (1) The bacteria which effect a spontaneous decomposition of glycerine fats belong presumably to the class of anarobes; a number of arobe germs (even the putrefactive) perish on a medium containing fat. But the term of continuance of this retrogressive metamorphosis is decided by the proportion of fat to the other ingredients of the nutritive medium. (2) Free fat contains anarobes for some days after it is expressed; but lanolin has under similar circumstances neither arobe nor anarobe germs. (3) Glycerine fats may be so impregnated with bacteria that the latter can pass through the fat to the lower-lying infectible substances, while lanolin cannot be permeated by bacteria. It acts, therefore, as a preventive of decomposition when laid over infectible substances.—*Brit. Med. Jour.*

The *Physician and Surgeon* says: The clinical amphitheatre is a good place to exhibit patients, but a very poor place to study disease.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 24. ST. LOUIS, DECEMBER 15, 1888. TERMS: $3.50 A YEAR.

REPORT ON PROGRESS.

GENERAL SURGERY.

BY A. H. MEISENBACH, M.D.

I. GENERAL REMARKS ON THE OPERATIVE TECHNIQUE OF CEREBRAL SURGERY.—*Amer. Jour. Med. Sci.*

II. THE TREATMENT OF PULMONARY ABSCESS.—*Amer. Med. Digest.*

III. TREATMENT OF RUPTURE OF THE BLADDER.—*Jour. Amer. Med. Ass'n.*

IV. A CASE OF TREPHINING OF THE GLADIOLUS FOR PUS IN THE ANTERIOR MEDIASTINUM.—*Lancet.*

V. ON THE SURGICAL ASPECT OF TYPHLITIS AND PERITYPHLITIS.—*Brit. Med. Jour.*

VI. CONGENITAL DEFICIENT ESOPHAGUS.—*Lancet.*

GENERAL REMARKS ON THE OPERATIVE TECHNIQUE OF CEREBRAL SURGERY.

Dr. W. W. Keen, of Philadelphia, read a paper on Cerebral Surgery before the American Surgical Association, Sept. 18, 1888, reporting three cases on which he had operated, and remarks as follows on the operative technique:

My experience in these three cases, as well as assisting at several others, in the new field of cerebral surgery, warrants some general remarks which I trust may prove of value.

1. *Shaving the head.* So important do I regard this that I would consider no diagnosis as assured, and no operation warranted that had not been preceded by shaving. The unexpected and unknown scars found have surprised me in other cases, as well as in those here related. Besides this, no reliable mapping on the head of the cerebral fissures and gyri can otherwise be made. These can also be now marked on the scalp by the aniline pencil.

2. *Antisepsis.* Practically, the admirable rules laid down by Horsley were followed, nor can they be too strongly insisted upon. (See details in Case I). No spray was used during any of the operations, though it had been used all the morning in the room in the first case. It is also especially noteworthy that on the day before I operated on the third case, circumstances made it needful for me to operate on a case of cancer of the colon with a fecal fistula and profuse suppuration. Dr. William J. Taylor assisted me in both operations; and our hands were, of course, saturated with infection. After the bowel case, we carefully disinfected them with soap and water, alcohol and bichloride, and several times repeated this during that afternoon and the next morning. No infection followed in the brain case—a most valuable lessen as to antisepsis.

3. *Anesthesia.* In all three cases, ether, and not chloroform, was used, and I saw no reason for any preference for chloroform.

4. *Marking the bone.* Whether to mark the site of a scar or other lesion, or to fix the site for the Rolandic or other fissure of the brain, the nicking of the bone by a gouge, through one or more small incisions in the scalp, is a most useful preliminary to the horseshoe-shaped incision for the flap. As soon as this flap is raised, all landmarks are lost, and one can only "orient" himself by a reapplication of measuring instruments, which probably have to be disinfected, or perhaps cannot be. Moreover, in my first case, it enabled

me, as related, to fix accurately the situation of the tumor.

5. *Access to the brain.* The large horse-shoe-shaped flap of scalp is infinitely preferable to the old crucial incision. The large trephines now used (one and a half, two, and even two and a half inches) are also a great help, and I think it a rule, almost without exception, that the bony opening should be ample. Bergmann's opposition to operative interference with large cerebral tumors, on account of the probable consecutive edema, from want of support by the skull, certainly cannot hold good. In my third case the pre-existing edema will perhaps find its best relief, indeed, from the operation. The success that has practically followed such operative procedures is its best vindication. Plenty of room, both for observation and for work, should be had. A small opening may defeat the very object for which we operate. A large opening adds no additional danger to the brain, and even if as large as in Case III., the integrity of the skull may be entirely restored. The "surgical engine" may be very useful in rapidly increasing the size of the opening, but it should be used by an expert (a dentist if the surgeon himself is not accustomed to its use) lest accidental injury be done to the brain. The chisel is not only needless but dangerous. It is quite surprising, also, how far beyond the limits of the skull opening we can feel and even see. The brain allows of gentle pressure very readily, and the finger can be inserted an inch all around the opening. The incision in the dura should also follow the margin of the bony opening (one quarter of an inch away) and not be crucial. It may then be replaced and secured by catgut with ease. I have had some trouble in doing this with the ordinary needles, and have had made a handled needle with a sharp, short curve and an eye in the point. Probably a sharply curved staphylorrhaphy needle would answer well.

6. *Hemorrhage.* For the scalp I used the narrow band of the Esmarch apparatus in the second and third cases, as suggested by Dr. M. Allen Starr. In the second it answered admirably, but in the third was soon cast aside as unnecessary. Generally, I believe,it will be very useful.

Hemorrhage from the vessels of the brain itself is one of the most important of all the operative questions. Morphia, as a preliminary, is useful, I have no doubt, as is also ergot, though I should give the latter in a dose of f℥ij—iv rather than ℥j, as I used. The effect of the cocaine applied directly to the brain was certainly very good. I shall, however, try it in a stronger solution (ten per cent.) in the next case. Very possibly, also, antipyrin might be of use in the same way. All such solutions, corks, bottles, etc., should be sterilized. I also used boiling water cooled to 114° or 120° F., to check the hemorrhage, and I could not see that its liberal use did any harm to the brain tissue. Pressure, also, is a most valuable means. But, after all, the chief reliance must be on the ligatures of catgut. They should not be chromicised,as that lasts too long, and may be an irritant, but are best prepared in oil of juniper and kept in alcohol (Kocher). In my second case I had no difficulty in tying the vessels, but in the third, and especially the first, their friability was such that the most delicate manipulation and equal tension on two ends were requisite for success. It is not the arteries but the large thin walled veins that give trouble. The cautery in any form should never be used. If there be any trouble in securing vessels of the dura or brain near the edge of the bony opening, this opening must be fearlessly enlarged, so as to give ready access to them. If the middle meningeal (or other artery, of the dura) cannot easily be tied at the cut edge, or even in its continuity, a suture may be passed around it by a needle passed through the dura, but the dura should then be carefully lifted so as to avoid any underlying veins. Weir has suggested the application of clamps to the cerebral vessels for 24 hours. My experience would make me doubt whether they would hold with such friable tissues, and, if they did, the tossing about of the patient's head might easily displace them, and possibly even

involve great danger to the brain itself.

7. *Recognizing the center sought for.* Only in Case III., did I have a definite center in view. Ordinarily the gyri and sulci of the surface would be a fairly reliable guide, together with the various methods now used for mapping these out on the surface of the skull. If in doubt, the ordinary Faradic battery will serve us excellently, as was shown in this case. The response to the stimulation of various partx of the same convolution was immediate, undoubted, and in every way satisfactory. (Cf. Horsley's Case V., *the Amer. Jour. of the Med. Sci.*, April, 1887, p. 358). In order more handily to use this means of diagnosis, I have had made by Mr. Flemming, this little rubber handle with two insulated poles, the stems of which, being flexible, can be placed near together or far apart as desired.

8. *Photography of the brain.* This can readily be done by an ordinarily expert amateur. Dr. Lewis and I are both of the opinion that the exposure should be practically instantaneous with the most sensitive plates made. Even with such plates they may be under-exposed on a cloudy day. But the danger of movement by the patient and the constant oozing of the blood make it desirable to have the shortest possible exposure. Possibly the "flash powder" may be useful, but if employed, the possible firing of the ether should be borne in mind. The photography is scarcely any interruption to the operation in the hands of a competent assistant. But I was disappointed in its results in both my cases (II. and III). It gave no good details owing chiefly, I think, to the wet, glistening, curved surfaces and deep shadow at the point of excision. I would prefer to have a rapid sketch made by a good artist who understands anatomy.

9. *Drainage.* Combined tubular and capillary drainage answered best in the brain, as elsewhere. The tube should be removed, as a rule, at the end of 24 hours. Whether it would have been wise to do so in my first case, with evidences of increasing pressure,is even now, in my mind, doubtful. The horse-hair may be removed in three to five days. Everything should bend to the speediest possible healing of the wound, thus preventing hernia cerebri, and favoring a quick recovery.

10. *Replacement of the bone.* This most interesting and valuable recent addition to our operative procedure receives further encouragement from the results of Cases II.and III. In the last the disk of bone (one and a half iuches) was replaced with about 15 fragments bitten out by the rongeur forceps. The skull is so completely restored, that, except for the scars and slight flattening, one would not know that it had ever been trephined. Heretofore, when the dura mater has been removed, the bone has not been replaced, but Case II. shows that even then it may be done with ease by attaching it to the under surface of the flap by chromic catgut. Of course, the small pieces cannot be so utilized, so in Case III. I had a lamb in the adjoining roon, and if the removal of the dura had been necessary and any large gap been made by the rongeur forceps I meant to replace the trephine button and fill up the remaining gap by another button from the lamb's skull, trimmed by the rongeur to suit the opening. I find that the back of the lamb's skull has nearly the same curve and thickness as man's, and will give one good button from its center, or, at a pinch, two might be got from it.

I had no trouble with the large disks, and do not think it at all needful to chop them up into small fragments as Macewen did. But if the bone is to be replaced, the most minute care must be given to it, from the moment of its removal to that of its replacement, by one of the assistants, whose sole care it shonld be. I have recently had to remove a similar 1½-inch button, which escaped observation for perhaps 20 minutes or more after its removal, and so lost its heat, even if it did not become septic, which seems not probable. It gave no trouble for over two months, but then produced an abscess, headache, etc., which were quickly relieved by its removal.

It is, however, proper to say that the skull was unusually thick and almost all compact tissue, and that, soon after the primary operation, the wound had to be reopened for hemorrhage from the scalp. Even with the utmost care, disks of bone, if chiefly of compact tissue, cannot always be successfully replaced. I recently had to remove three such, much smaller (one-half inch) buttons from one of my cases of trephining of the lower jaw. Yet Dr. J. S. Miller (*Med. News*, liii. 136) has just reported a successful case of reimplantation of one such button in the same bone.

11. *Rapidity of recovery.* Case I., in consequence of the reopening of the wound and later complications, was long in getting well; but Cases II. and III., were out on the streets on the seventh and eighth days, their highest temperatures having been 99.9° and 100° respectively; Case III. with but little, and Case II., with absolutely no pain and no medicine. No iodoform was used. I get better results without it and its abominable odor.

Thanks chiefly to vivisection and antisepsis, cerebral surgery will show, within the next few years, triumphs as exact, extraordinary, and beneficent as has abdominal surgery.

Treatment of Pulmonary Abscess.

The exploration of and operations on the chest cavity is a field that as yet has not given as satisfactory results comparatively as that of the brain and abdominal cavities. Resection of the lung and pneumonotomy offer great possibilities for investigation in the future and that this line of work is gradually being developed is shown by the following abstract of a paper of Drs. Spillman and Haushalter (Revue de Medicine) in which they discuss the subject of abscess of the lung following acute pneumonia—a somewhat rare event. They reproduce abstracts of nine recorded cases where pneumonotomy was had recourse to, in seven with success. All these cases were operated upon long after the pneumonia had subsided, in two after the lapse of two and five years respectively. Surgical intervention should, in their opinion, not be delayed so long, owing to the risks involved both locally and generally in leaving an abscess in this situation unrelieved. The diagnosis is, therefore, all important, and is based upon the supervention of hectic after pneumonic defervescence, of purulent or gangrenous expectoration containing shreds of lung tissue, fatty crystals, etc., and the physical signs of excavation. Recognizing the frequent insufficiency of these latter signs, they urge the use of exploratory puncture, which was adopted in most of the cases referred to. Pleuritic adhesions may have resulted from the previous pneumonia, but in some cases they are lacking, and may have to be artificially produced, either by resection of a rib and suture of the pleural layers, as suggested by Runeberg, or by exciting pleurisy by means of the cautery, as Cerenville did. Runeberg, however, does not think the absence of such adhesion contraindicates the operation. The authors record a case of their own where signs of abscess at the right base appeared on the fifteenth day of pneumonia, and where the diagnosis was confirmed by exploration. Glycerin and iodoform were injected into the abscess, but the patient died on the following day from collapse. The paper concludes as follows: 1. Before having recourse to operative intervention, one must be quite certain of the existence and site of the abscess by every method of diagnosis, and especially by exploratory puncture. 2. When an abscess is diagnosed in the course of pneumonia, intervention should, as a rule, not be entertained; but if the pneumonia is cured and the abscess persist, then intervention may bring about recovery, or at least, prevent serious accidents resulting from the opening of the abscess into neighboring organs or externally. 3. Before opening the abscess, it is useful to provoke pleural adhesions, if these do not exist. 4. To reach the abscess, the best procedure seems to be resection of rib and piercing the lung by the thermo-cautery. 5. The complete escape of

septic fluids must be effected by drainage; antiseptic injections are to be avoided, and dry dressings to be preferred.

Treatment of Rupture of the Bladder.

In an original memoir contributed to the July number of the *Archives Générales de Médicine*, Dr. A. Blum has reported a case under his own care of intraperitoneal rupture of the bladder with peritonitis successfully treated, after an interval of forty hours, by laparotomy and suture of the wound. Of twelve recent cases—eleven collected from English and German sources—in which laparotomy was performed for intraperitoneal rupture, six ended in recovery and six in death. In the table of collected cases published by Bartels in 1878, ninety-three out of ninety-four cases were fatal. The following conclusions are given by Dr. Blum at the end of his paper: "The surgeon, in dealing with a case of certain or supposed rupture of the bladder, ought not to hesitate to incise the linea alba as soon as possible, in order that he may make out precisely the seat and extent of the lesion. If the laceration is seated near the base of the bladder—that is to say, if the peritoneum be not involved, perineal cystotomy will be indicated. In cases of intraperitoneal rupture the edges of the wound in the bladder should be brought together by sutures, and the 'toilette' of the peritoneum be performed without subsequent drainage. The best kind of suture, and the only one that has been successful in man, is that of Lembert (sero-muscular suture, not including the mucous membrane.) When, in consequence of its situation and extent, the wound cannot be united, it should be sutured, if possible, to the abdominal wound, or drainage should be effected, according to the practice of Socin, by an artificial perineal wound. The existence of peritonitis at the time of operation is uot a contraindication to stitching of the wound in the bladder. Still, the earlier the performance of laparotomy the better are the chances of success.

A Case of Trephining of the Gladiolus for Pus in the Anterior Mediastinum.

At the meeting of the London Medical Society, Oct. 18, 1888, Mr. Charles A. Ballance read an interesting paper on a case in which the gladiolus sterni was trephined for pus pent up in the anterior mediastinum. The patient, aged thirty-five, was admitted into St. Thomas's Home on August 31st, 1887, complaining of a discharging abscess over the front of the upper part of the chest, accompanied by constant and severe pain and great tenderness along the breast bone; also of fever, anorexia, loss of strength, and want of sleep. There was a history of inflammation of the lungs two years before; for three months there had been mid-sternal pain, and a lump had formed, into which an incision had been made and much pus evacuated. This was followed by a discharging sinus, which on admission, was found to lead down to bare bone at the left second costo-sternal articulation, and the probe could be passed still further into a space behind the gladiolus. The sternum itself was acutely tender on palpation, and was the seat of constant dull, aching pain. Another swelling had formed over the left fourth, fifth, and sixth costal cartilages, and discharges from the old sinus was less copious than usual. Two days after admission the lower swelling was incised, and the old sinus laid freely open. During the next five days rigors occurred, and it was decided to explore behind the sternum for pent-up pus. Two trephine holes were made, and the entervening portion of bone cut away with forceps. The bone removed was found permeated by pus, and on looking into the anterior mediastinum a layer of thick creamy pus was seen on the front of the pericardium; this was carefully syringed away, and much carious bone was then scraped by means of a Volkmann's spoon from behind the sternum. Finally the wound was irrigated with sublimate lotion, packed with wet sublimate dressing, and covered with a dry dressing of the same character externally. The patient made a rapid and complete recovery, the

sternal opening becoming filled in by fibrous tissue. Mr. Ballance was not aware of any case in which treatment had been applied to the posterior surface of the gladiolus. He took it from the first that the illness of the patient two years before had been puerperal or septic in origin, and had left some focus of disease in the interpleural space. By scraping the posterior surface of the gladiolus he could not hope to eradicate all the germs of the disease, and the completely successful issue of the case was, he thought, in no small degree due to the constant association of the diseased surfaces during convalescence with corrosive sublimate. The sternum had been trephined for abscess or foreign body in the mediastinum, paracentesis pericardii, and the operation had been suggested in order to facilitate the ligation of the innominate artery. The two most prominent symptoms of mediastinal suppuration appeared to be dyspnea and constant severe pain. A carefully compiled list of published cases of mediastinal suppuration accompanied the paper. Dr. M. Sheild had twice seen pyemic abscesses perforating the sternum and giving rise to pulsating swelling. They followed acute necrosis; both were opened, and both terminated favorably. Mr. Davies-Colley inquired what were the exact symptoms that pointed to abscess behind the sternum.—Mr. Ballance replied that the sudden cessation of discharge from two sinuses leading to the anterior mediastinum, accompanied by rigors, pointed to retained pus.

On the Surgical Aspects of Typhlitis and Perityphlitis.

The above was the title of a paper read by Dr. W. T. Bull, of New York City, before the Medical Society of London (Sir Wm. MacCormac in the chair), Nov. 5, 1888.

For the purposes of a brief summary, he divided these cases into three groups. 1. Ten cases in which abscess was opened by incision through its walls without opening the peritoneal cavity. In these cases the operation was performed within from seven days to six weeks of the commencement of the attack, and was successful in all, thus showing the advantage of the extra-peritoneal operation. 2. Six cases in which the peritoneal cavity was opened for supposed perforation. The earliest was performed thirty-six hours and the latest five days after the commencement of the attack. Two of these cases proved fatal. 3. This group comprised only a single case, in which the abdomen was opened on the third day in the presence of threatening symptoms. No pus was found and no evidence of peritonitis, but the pelvis was full of old adhesions. Referring to the fact that the necessity for early operation in threatened peritonitis had mainly occupied their minds, he observed that it was a universal comment in such cases that the operation should have been performed earlier. He said that while they preached early intervention their practice was not always early enough to save the life of the patient. He urged that there were good clinical reasons for preserving the designation of perityphlitis, since the exact nature of the case was not often easy to make out on the living subject. Suppurative inflammation was induced by perforation, the pus being first in the appendix, and later finding its way into the peritoneum, or the pus might burrow through into the iliac fossa and so a secondary abscess be formed. He thought that the intra-peritoneal origin and situation of the abscess might be considered as proved by the following evidence: Both the cecum and appendix were completely invested by peritoneum, and in operations for well developed abscess, when the thickened walls had been incised, the iliac sac had been opened up and found quite free from infiltration. Dr. Weir had called attention to this, and he had been enabled to confirm his observations. The general rule of treatment as to opening up purulent collections as soon as detected was one which had met with general approval. The disease sometimes ended in resolution, and even suppuration might be limited by strong adhesions, and thus permit of a safe termination by a timely incision. The first advance

was made by cutting down for pus before fluctuation had been detected, thus preventing the possibility of an accumulation of pus. Then came the idea that constitutional signs alone might suffice to show whether there was any pus or not. That, however, did not help them in general peritonitis from perforation. Those cases were a source of great anxiety, and would continue to be so until they insisted upon an exploratory operation before general extension of the peritonitis took place. He preferred to use the terms "spreading" and "circumscribed" peritonitis, as marking the characteristic feature of each variety. Suppurative peritonitis might be spreading, circumscribed and intra-peritoneal, or there might be cellulitis with secondary abscess; he would add hepatitis with or without abscess of the liver. The author then recapitulated the symptoms of the disease, insisting on the surgical importance of fever and shivering. In such cases the abdomen and rectum should be frequently examined, tenderness and the presence of an area of dulness indicating pus. The outline of the cecum might be made out, filled with feces, and that might exist alone or in connection with a less distinct area of induration, and the latter might persist when the former had disappeared. The end of this should be reached in about ten days. The abdomen then might become tympanitic, with debility, loss of appetite, sweating and marked anemia. In order to determine the presence of pus under these circumstances the exploring needle was the best instrument. He mentioned that since this plan of diagnosis was introduced he had heard of peritonitis being caused by it; but he urged that, although the use of the needle was not altogether devoid of risk, yet, if proper precautions were taken, the risk was very small. He then narrated three cases characterized by the disappearance of the pain and the fever after a few days; but the tumor had persisted, and the needle had revealed the presence of pus in large quantities. In all these cases the abscesses were opened with a satisfactory resul At any moment the symptoms of perforation might supervene, even though the general symptoms had subsided. Severe constitutional distance, however was usual, and might be held to justify interference. By the third or fourth day the tumor would be well marked in the right or left iliac fossa, and it was about this time that the needle was likely to prove useful. The more rapid the development of the symptoms the earlier should the surgeon interfere. Exploration in case of doubt was preferable to waiting for unequivocal information. The operation for perityphlitis might be laparotomy or mere incision. In washing out the cavity no solution should be used stronger than 1 in 10,000 of corrosive sublimate, or 1 in 100 of carbolic acid. He then discussed in detail the steps of the operation, and read the notes of his principal cases, concluding with the aphorism that the risk of operation was less than the risk of waiting.

The president expressed his sense of the value of Dr. Bull's admirable paper.

Mr. Frederick Treves said that clinically one heard a good deal of inflammation of the peritoneal investment and cellular tissue of the cecum, but observed that no cellular tissue existed round the cecum. He asked why the cecum and appendix should be singled out as liable to take on a form of catarrh which involved such serious consequences. He thought that it could be shown that the appendix played a very prominent part in the production of typhlitis. In 70 per cent of the cases the appendix was found to be the source of the mischief. Referring to extra-peritoneal abscess; he said it was very difficult to understand how pus originating within the cecum could find its way outside. As Dr. Bull had pointed out, it was very rare to find pus round the cecum, except in connection with pus inside the peritoneal cavity. He endorsed the need for rest, etc., but added that many people would hesitate as to the early employment of the needle. Personally, he considered the procedure somewhat risky. He thought it was exceedingly bad practice to ligature and cut off the appendix, which, after all, was an integral part of the intestine.

When removed, the edges ought to be united by a continuous suture, or joined to the parietal peritoneum. Alluding to the fact that typhlitis was very apt to recur, he advocated operating after the second attack, and removing the appendix, which was the cause of the trouble. He mentioned such a case in which after the third attack he had operated, and found the appendix twisted in consequence of the non development of its mesentery, and acutely distended with mucus. Since the operation there had been no recurrence of the malady, and the patient might be looked upon as cured.

Dr. Paramore mentioned that he had been operated on about sixteen years ago by Mr. Heath for the complaint, and a large quantity of pus and fecal matter had been removed. There had been no recurrence.

Dr. Weir, of New York, said that, according to some statistics which he had collected of a hundred patients operated on after the eighth day, 17 per cent had died, whereas of those operated on before that date, only 8 per cent had succumbed. He looked laskance at the catarrhal theory, and, indeed, at the stercoral inflammation. He thought the practice of giving purgatives and enemata was all wrong, seeing that the trouble was due, in the majority of cases, to perforation of the appendix. Perforation of the cecum was rare, occurring only three times in 300 cases. Last year he had collected notes of a hundred necropsies of typhlitis, and in only six cases was the cecum filled with feces. He quoted some statistics, according to which the mortality was 40 per cent under the old method of treatment, and only 16 per cent since purgation had been abandoned. Reverting to the necropsies, he said that in twenty-two cases the abscess was localized, and in thirty-two cases there was abscess plus peritonitis, while in fifteen cases there was general suppurative peritonitis. In only four cases was there any extra-peritoneal disease. About fifteen abscesses out of sixty-seven burst into the peritoneal cavity. The needle was a good means of arriving at a diagnosis, provided one fell upon the pus, but the not finding the pus was no proof that pus was not present. In some cases where general suppurative peritonitis was suspected, no tumor could be felt, and in such cases he thought it was advisable to operate.

Mr. Knowsley Thornton said that no surgeon of the present day would hesitate to operate when pus had been recognized to be present. With reference to washing out in these cases he said that he had never found it necessary to do this, and he thought that good drainage was all that was required. He alluded to the troublesome sinuses which were apt to form, the cure of which was often impossible. He mentioned the case of a lad aged 17, who had suddenly developed symptoms of typhlitis, for which a purgative and enema were given; a day or two afterwards he suddenly became collapsed, and when they operated they found the appendix standing upright, distended, black and gangrenous, together with the adjacent portions of mesentery. The patient lived for about a week after the operation and then died, probably from an extension of the gangrene along the mesentery. Another case was that of an aged gentleman with symptoms which pointed to typhlitis and a large dull mass on the right side. The question was as to whether this mass was malignant or not. He determined to puncture, which he did with a long, narrow knife. He found at once that he had to do with a solid mass, and desisted from anything further, under the impression that it was a sarcoma. Only a little bloody serum exuded. Curiously enough, that patient recovered after the puncture and got quite well. He said he had often seen Sir Spencer Wells ligature and cut away the appendix, and he had never seen any ill results follow. Latterly, however, he had taken to bringing the edges together by means of a continuous suture, which on the whole was perhaps preferable.

Mr. Barker, in response to the president's invitation, said he had only had two cases, and they had both proved fatal. He asked which incision Dr. Bull preferred; he thought

that it was easier to wash out the cavity through the median incision.

Dr. Kingston Fowler protested against the idea that the disease was one which could not get well except by surgical interference. He quoted Dr. Fagge to the effect that during his last five years at Guy's Hospital not a single case had proved fatal, though treated simply by opium and rest. He admitted, however, that there were cases in which surgical interference could not well be dispensed with.

Dr. Bull, in reply, observed that he had purposely only dealt with the surgical aspect of the disease. He doubted whether patients could often be persuaded to undergo any operation after an attack had subsided, as suggested by Mr. Treves. He had never met with any accidents in the use of the exploring needle himself. He said that no one would hesitate to wash out fecal matter, and he asked why they should hesitate to wash out pus that smelled as bad as feces, and was as injurious in its effects. He made an incision from the middle of Poupart's ligament vertically upward, and even a little up outward, and he much preferred this to the median incision.

Case of Deficient Esophagus.

Charles Steele, M. D., F. R. C. S., reports the following interesting case, from both a surgical and an anatomical view.

I was lately asked to see in consultation an infant 24 hours old, who shortly after being given nourishment, a little of which was taken readily, became very livid, had difficulty in breathing, and then returned the food and appeared no worse. The gentlemen in attendance wisely introduced a sound, and found that it passed about five inches and encountered an impassible obstruction. He then asked me to see the child, and I repeated the sounding with the same conclusion. We diagnosed that there was either a membrane across the esophagus or that it ended in blind terminations; and I advised that through the night enemata of desertspoonfuls of peptonized milk should be given every two hours, and that by daylight the stomach should be opened and the esophagus explored, if a membrane could be made out across the continuous canal, that it should be perforated in order to give a hope of life; and that if we found any distance existed between the extremities we could do no more; the parents, however, might feel that every possible endeavor had been made to save their child's life. This was agreed upon, and the father willingly acceded. On the following afternoon I was asked to perform the operation. The infant took chloroform well. I opened the abdomen above the umbilicus in the middle line, exposed the stomach, and stitched it at four points to the skin, having some difficulty to keep the liver from protruding. The stomach was then opened, which was perfectly healthly and, of course, empty. A bougie was passed down the esophagus as before, and another upward from the stomach for a short distance; but they did not approach each other by what we judged to be an inch and a half. I then cut a gum-elastic catheter in half, and passed it from below, introduced up it a long slender steel probe, and pressed it upward as mnch as was justifiable, in case the lower part of the tube might be twisted or narrowed, and capable of being rendered pervious. All was of no avail, however; so the stomach wound was closed with sutures, also abdominal wound, and we felt sure that the esophagus was deficient for an inch and half. The infant slept for some time, and died 24 hours afterward. The next afternoon we made an examination, and found the esophagus terminated above and below in blind rounded ends an inch a half apart, and there was no cord or connection between the parts. All the wounded portions were quite healthy, and the appearance led to the conclusion that had there been only a membranous occlusion a happy result might have been hoped for.

Pneumonia, says Dr. Seibert of New York, is a house disease, originating, with diphtheria and inflammatory rheumatism, in damp, dirty or unventilated rooms and cellars.

ORIGINAL ARTICLES.

CAUSE OF CONGENITAL CLUB-FOOT. ARGUMENT IN FAVOR OF THE MECHANICAL THEORY, BASED UPON PERSONAL OBSERVATION.

BY EWD. BORCK, A. M. M. D., ST. LOUIS, MO.

Read before the St. Louis Medical Society. Nov. 24, 1888.

The theories of the cause of a pes equino-varus congenitus, have from time to time undergone various changes. Electrophysiologists especially tried to prove that this abnormal position of the feet, depends solely upon paralysis of certain muscles on the one hand and the consecutive contraction of the antagonistic groups of muscles on the other hand.

This may be true,to a certain degree, for an acquired paralyzed club-foot; but it is not correct for a congenital club-foot. In a true congenital club-foot we have no paralyzed muscles; a certain group of muscles may respond here, a little less to electrical irritation than in a perfect normal individual, but that does not prove that they are paralyzed, for if they were actually paralyzed, and if this paralysis was the cause of a congenital club-foot, then there would also be present a disturbed nutrition of the affected group of muscles. In congenital club-foot we find no such disturbance, the muscles are well developed, and we can easily convince ourselves of the fact by comparing the two limbs in a case where but one foot is affected.

We also hear of the influence of the nerves upon the primary contraction of the muscles, but with children who are perfectly healthy and otherwise well formed. This is out of the question, for the muscles do not remain in a continuous or unconquered state of contractions that has the slightest similarity to a convulsive condition. (I refer you to my Clinical Lecture, Paralysis and Paralytic Contractions in Children, *Phil. Med. and Surg. Reporter*, August 25, 1883.)

As to the theory that diseases of the nervous system, either of the peripheral or central, produces congenital club-foot we have nothing in its favor. I have never seen a paralyzed child born with a true "pes equino varus congenitus." I have seen children born with paralyses depending upon lesion in the central nervous organs;perhaps with 1 or both of the lower extremities paralyzed, that is, the muscles were paralyzed and atrophied, such a child never has equino-varus. I have never observed with such children the true physiological position of the feet after birth, "equino-varus". It is exactly the reverse in such cases, the feet after birth at once come down, and rather assume directly the position of a normal adult foot, sometimes with a more or less of an equinus, but not with varus, or a turning of the foot inward with adduction. The apparently normal position of such a paralyzed foot becomes in this case abnormal. If such a child remains paralyzed, and begins to crawl and attempts to walk and partially succeeds, then a pes equino varus is produced or acquired in time on account of the paralyzed muscles, the child uses its feet to the best advantage if left alone, the bones will grind themselves aright, and adapt themselves to their new position, if not relieved will remain so after perfect ossification has taken place.

Again we have the theory of arrest of development, but let us not understand by this that any one part has not been fully developed, or has a deficiency, neither those cases of deformity, that may depend upon the complete absence of one or more bones.

For a better understanding let me say, that I consider a pes equino-varus the physiological or normal position of the feet, of the fetus in utero, as it is of the hand and fingers, which are always flexed. After the child is born we can tell at once what position it did occupy in utero, for the child maintains the intra uterine position for sometime after delivery.

Take an infant a few weeks old, nay even a few months old, and observe that the external edge of the foot is much deeper than the internal one and that the plantar side is turned into pronation. This physiological

(club) foot of the infant gradually diminishes or ceases in intensity from the time of birth until the child begins to walk; then the reverse takes place gradually, the feet become turned in the opposite direction, when the weight of the body rests upon the sole of the feet, in fact, they acquire a position of abduction, the knees and hip-joint straighten, the internal condyle of the femur becomes more prominent than the external condyle, the rotation of the thigh outward will be more comfortable and, in short, the whole extremity rolls more from the inside toward the outside, and thus the normal adult-foot is developed. If you take a child before it begins to walk, lay it down free and easy, you will observe that the persistence of the fetal position is not alone confined to the feet; an analogical relation is found in the knee, hip, also in the arms and hand. You will see the sweet little creatures draw the lower legs upon the thigh and rotate them a little inward, therefore, the points of the feet will come together and after a little while upon one another, they will also bend the hip-joints with delight, the thigh becomes adducted, and rotates inward, and here we find a picture of the intra-uterine position, and this point, pray, do not forget.

Now we come to two important questions: First, what constitutes a true congenital club-foot?

I answer, the remaining of the intra-uterine physiological fetal position of the feet after delivery and after the child begins to walk.

Second, what is the primary cause of such a condition?

I answer, want of space in the uterus—that is, the contraction of the uterus upon the fetus, thereby preventing the proper movements of the fetus which are so essential to the perfect development of muscles and formation of joints. And now you may ask what causes the pressure of the walls of the uterus upon the fetus? I answer, absence of amniotic fluid, or a diminished quantity of the same; and whenever we meet with such a condition during the term of pregnancy, most likely we will also find that the child's physiological position of the limbs will remain permanent when matured. The limbs and joints have been kept immovable, remained still or quiet, and so the bones and joints, tarsal bones especially, are developed in a wrong direction. Allow me to remark here that the idea advanced by some that a child in utero cannot live without the amniotic fluid is not and cannot be correct; for we know that children have been born with atresia oris and imperforate anus, and with complete absence of the nose and closure of the nasal cavity. And such infants were carried to full term, and lived as long as they were not separated from the cord. The amniotic fluid is not there to nourish the child; it is there, I firmly believe, only for a mechanical purpose, to protect the child from injury, and to swim in it, and move about for its proper development.

Let us now study for a few moments the anatomical and physiological relations in regard to the above theory a little more minutely.

In fetal life the movements of the child occur at regular normal intervals, sometimes oftener and more distinct and more perceivable than at others, perhaps change of position of a single extremity at a time, like the spasm of muscle, just as if such changes of position of the child were necessary, and may have been intended for the purpose of permitting no definite state of contraction of any one muscle, and so to serve for the development of the joints. If now the fetus is deprived of the possibility of motion and has to remain in a constant position, then the muscles will, according to nature's law, remain in a state of contraction, that is to say, they will not permit extension without the employment of force. Now in the position of the fetus with flexion of the leg against the thigh, and with adduction of the foot, the points of insertion of these muscles are brought nearer together, approach toward each other, and they must become contracted, and then the tendons are most prominent, this contraction or tension which is so well known in

pes equino varus, and which is always to be found in muscles which have been confined any length of time.

However, those muscles which have an opposite action will become extended, or will be in a state of extension, and by a continual separation of their points of origin and insertion gain in length, and if we now try their action, for example by electricity, we will find in consequence of their elongation, a very small amount of contractility even after their antagonists have ceased to be contracted. These extensor muscles of the leg are by no means paralyzed, and just as those muscles which have been contracted are able to expand again, so those that have extended become able to contract again, as soon as their points of insertion are brought in nearer relation to each other. This is a fact, and a proof that a congenital clubfoot depends upon a mechanical cause, and not upon a hypothesis of disease of the nervous system.

Further, if the muscles are not capable of action because the extremities were more or less fixed, then the joints must remain in the state they were fixed in during the period of fetal life, and wherever pressure or extension acts upon a bone, its form must be changed thereby; if during pregnancy the feet have been kept, by pressure and for want of space, in a constant fixed position, they necessarily must offer other joint and bone relations than the physiological fetal ones. If such an afflicted child grows up and attempts to walk, the deformity will necessarily increase by the weight of the body acting upon the wrong axis, and those muscles which are not exercised will begin to atrophy. The ligaments of the foot also take part in these fixed positions in fetal life in a way similar to the muscles—that is where their points of origin and insertion approach each other they shrivel. We can best observe this in the plantar aponeurosis, whose contraction is so highly developed in club-foot as to be extraordinary, which oftentimes we are obliged to divide thoroughly to enable us to straighten the metatarsal bones and toes. This contraction of the plantar aponeurosis, if it remains after birth, I believe, is the cause that the metatarsal bones become shortened, and notwithstanding that the foot may have again acquired its normal position by art, still they remain shorter than in a healthy foot. The malformation of the bones, the tarsal and especially the cuboid and scaphoid, offer the most resistance in the treatment of congenital clubfoot of long standing, and are by no means very small obstacles to overcome in an early treatment.

The question may be raised that we meet with clubfeet and other deformities in infants that have had plenty of amniotic fluid to move about in. Most certainly we do. My experience has taught me this: That in every case of true congenital clubfoot (where all the bones were present) that I met with in my own practice, and which I kept under my own eyes and treated the same, labor was tedious, tedious on account of absence of amniotic fluid, the mother's abdomen was never greatly increased in size during her term of pregnancy, and she had very little or no escape of fluid previous to her confinement. The cases of true congenital clubfeet which I have seen of late years in my consultation practice agree with my own as far as I was able to ascertain by the following questions to the mothers:

Q. Have you had a slow or rapid labor when the child was born?

Ans. Slow, or very slow; lasted 24 hours or more, as the case may have been.

Q. Was your abdomen very full and prominent?

Ans. No; one could hardly tell that I was with child.

Q. Did you lose any fluid during the time you carried this child?

Ans. Not that I am aware of.

Q. Did you notice the free movements of the child?

Ans. I never felt any motion. I suffered pain at times, a kind of pressure that pressed my stomach out.

In some of these cases the family physician endorsed the mother's statement.

In other cases that came under my care,

and where there was plenty of fluid in utero for the infant to swim in, and labor was easy and of short duration, and the child had a developed clubfoot, the distortion depended upon other causes, such as non-development of one or more bones, or upon the absence of one or more bones, or of both together. In these cases I never observed a clubfoot such as I described this evening. The study of this subject is very animating. I have had the opportunity of dissecting the normal feet of infants and children of various ages, and a few cases that presented the known malformations and deformities, and my own observations and study agree with those who have made, carefully, post-mortem examinations before me.

I would also mention that if a child is by some means or other prevented from using his feet, and never has attempted to walk, or begins very late, the physiological position of the feet will remain, and thus is developed a pes equino-varus.

Whatever little I have brought forward in favor of the mechanical cause of congenital clubfoot I hope will serve to explain this most rational theory. A true congenital clubfoot does not depend upon muscular paralysis; it is produced by a malformation of the bony structures.

THE TREATMENT OF PERITONITIS.

BY AUTHUR V. MEIGS.

Read before the Philadelphia County Medical Society, Nov. 7, 1888.

The question how to treat peritonitis is one of the greatest importance, and upon the decision eventually reached will in the future depend the lives of many patients. Should the leaders of our profession decide that the administration of saline purges is the best treatment, and this be for a few years taught in the schools, the ordinary practitioner will soon acquiesce. If such a consummation is to be deplored, now is the time for us who are of the contrary way of thinking, to protest.

To me it seems clear that before any conclusion can be reached, it must first be acknowledged that peritonitis, as ordinarily seen, diagnosticated, and treated by physicians, is so different from the lesion or disease which has been successfully dealt with by surgeons by the administration of saline purges, that it must be recognized that, from the standpoint of therapeutics, the two questions are as far apart as though there were two widely differing diseases.

As a therapeutic measure no one disputes the wisdom, under some circumstances, of making an attempt to abort an inflammation; and yet it is equally well known that such an attempt, when made after the inflammation has progressed so far that to abort it has become impossible, must not only fail, but equally certainly will be productive of positive harm. It is a common rule of treatment and one that holds good in the great majority of instances, that an irritated, sore, or inflamed part is to be put as nearly as possible at rest, and that whatever increases the pain suffered is likely to be injurious. Why shall we make an exception to this rule in all cases of peritonitis by giving salines, which throw the bowels into a state of great activity, and increase the pain, at the same time denying the patient opium, which equally certainly relieves?

I have been, and am an advocate of the use of opium in all cases of peritonitis as seen by physicians, but at the same time I have never denied my patients the use of laxative medicine, and it is, I am sure, by their judicious administration, according to the special needs of each particular case, of the two seemingly diametrically opposed drugs that the best results will be attained. The reason probably that the use of opium in the disease is being decried is that it has been abused. It should not be given to the point of narcosis, nor should it be expected that in cases of severe peritonitis the pain will be abolished. Measurable relief only should be looked for, with alleviation of the terrible colicky pains so characteristic of the disease in its full development. I have never been a believer in

the use of anodynes exclusively, and think it absurd to talk—as I have heard—of purging the patient by the use of opium and belladonna. If we had six months in which to work, and could first establish the opium habit in the patient, we might, perhaps, encourage diarrhea, or at least not interfere with it, by the administration of opium. In a disease, however, which lasts usually but a few weeks at the outside, such an expectation can end but in disappointment. The treatment that will give the best results, accord- to my view, is the following:

In all cases in which no physical obstruction can be diagnosticated, for which operation must be at once recommended, and this should include doubtful cases in which operation may subsequently become necessary, there should be prescribed liquid diet, small quantities every two hours, and every two hours a quarter of a grain of opium, and one-twelfth of a grain of extract of belladonna. To this may be added, if it should seem advisable on account of pain, the administra tion twice, or at the outside, four times in 24 hours, a one grain powdered opium supposi tory. At the same time injections of warm water, with or without soap, should be given once to three times daily. If flatus is passed, the case continues to be a very hopeful one. This course should be very rigidly adhered to for from 24 hours to five days, or possibly longer, when the time will have arrived at which it becomes necessary to consider the propriety of using some sort of aperient.

Purgatives are given in peritonitis for two distinct purposes: first, to increase the peristalsis, and thus overcome obstruction; and second, to induce large watery movements, for the purpose of directly depleting the abdominal, and especially the intestinal blood-vessels. After operations, inflammation in a greater or less degree is so common, and we are so well aware that it is liable to occur, as to be always prepared to meet it. This being the case, it may be met in its very incipiency, and if the inflammation can ever be aborted, it is under such circumstances. The explanation of the success, therefore, of surgeons in treating peritonitis with large doses of saline purgatives would seem an easy one, for they deal with a stage of the disease which never comes under the management of physicians, as people in the early stage of the disease do not seek advice, and besides if they did, the differential diagnosis between idiopathic peritonitis in its earliest stage and enteritis or mere intestinal irritation would be an impossible one. No one, I think should deny surgeons the credit their courage deserves for having instituted this revolutionary method of treatment, for measured by our old standards it is revolutionary, but at the same time we must not err upon the other side, and with undue haste conclude that the method is applicable to all cases. I have long been of the opinion that the old surgical practice of shutting up the bowels for a week, with opium, after an operation for hemorrhoids, was a bad method.

Having then quieted our patient somewhat during the first few days of attendance, with injections and liquid food, and belladonna and opium, and at the same time been very careful not to induce narcosis, or in the least to depress the respiratory forces, for if we do the remedy will be worse than the original disease, we must, as already said, consider the propriety of getting the bowels moved. The decision in regard to the precise moment at which this attempt is to be made is, in my opinion, one the most delicate questions that can arise in therapeutics, and gives to each of us, when we meet it, an opportunity to show a real genius for the treatment of the disease. The medicine, however, which shall be given is very easy to decide upon—here there is no inflammation in its early stage, and therefore, there can be no question of aborting it. Salines could only act upon the bowels like any other drugs, relieving tension, if you like, by abstracting water directly from the intestinal blood-vessels; but, so far as the mere moving of the bowels is concerned, they are by no means so effective, or, as the laity call it, "searching", in their action as some of the vegetable purgatives. Any one who has been called upon to treat cases of fecal accumula-

tion (a paper upon this subject was published some years ago by the speaker in the *Trans. of the College of Physicians of Phil.*), will have learned how useless and ineffective are salines if the bowels are very sluggish, while small and repeated doses of vegetable purgatives are perfectly satisfactory and certain in their effects. In such cases salines and even castor oil will induce large watery stools, but no fecal matter is brought away, and it seems as though the fluid material had come from below the accumulated feces, or come by and the patient is no better off than before, though probably he will have suffered much pain. No better combination can be given than a pill consisting of a twelfth of a grain of extract of belladonna, a quarter of a grain of extract of nux vomica, a quarter or an eighth of powdered aloes, and a half or one grain of rhubarb. This should be given at first once or twice in 24 hours, and if violent pain be set up—which, however, seldom happens—it should be stopped, and the opium and belladonna every two hours used again for a day or two, when the attempt with the aperient may again be made. After a day or two the pill may often be given every four hours, and I have often seen the obstruction give way under this treatment, and the patient entirely recover.

It would be most unfortunate, it seems to me, for the science of medicine, and still more so for those who in the future are to suffer with peritonitis, if the treatment of the disease with sedatives should be entirely abandoned, as has been recommended here this evening. Let us look at the question reasonably, and without prejudice, and in the future assign to one class of patients operation by a competent surgeon, and saline purgatives afterward, if those skilled from a study of the subject in that particular direction judge that to be the proper course; and to the other, a reasonable use of anodynes and injections with moderate doses of vegetables laxatives when the time comes for their administration. Because, in the past, the sedative method of treatment has been abused, and patients have been hurried out of the world by the unwise management of incompetent physicians who have narcotised them, is no reason why we should cast aside what is good in the method any more than it would be wise for us now to assume that, because the administration of saline purges is advisable in the surgical treatment of some cases, it is, therefore, to be looked upon as a panacea in the disease, and the treatment to be recommended in all cases.

For my own part I am a firm believer that the disease may arise idiopathically, and when I say this, I mean from an attack of enteritis or violent indigestion, or from chilling of the body, just as I believe pleurisy may arise, and in such cases, it is reasonable to suppose that the inflammation very soon becomes more or less generalized, though, of course, it must have had its origin at some point. Such cases as these, if it be conceded that they ever arise, are not amenable to surgical treatment, for there is no point of special obstruction, and operation could not effect any good, unless by merely cleansing.

In conclusion, I cannot better perhaps emphasize the correctness of the statement that the treatment by sedatives should not be abandoned in all cases of peritonitis, than by calling your attention to the fact that in many cases in the past, and the same thing is certain to occur in the future, post-mortem examination has demonstrated that the disease was so extensive, or of such a nature as to be necessarily incurable. Under such circumstances, I think, no one will dispute that the province of the physician is to do what he can to sooth pain, and make the last days and hours of the patient as endurable as circumstances permit, and no other drug will conduce so much toward this end as opium.

A SUCCESSFUL VAGINAL HYSTERECTOMY FOR CARCINOMA UTERI.

BY WM. H. WATHEN, M. D., OF LOUISVILLE.

Abstract of a paper read before the Southern Surgical and Gynecological Society at Birmingham, Alabama, December 5, 1888.

I had written a paper on "Hysterectomy for Malignant Diseases of the Uterus," to

be read before the Southern Surgical and Gynecological Society in September, but after the meeting was deferred to December, I read the paper before the Association of Obstetricians and Gynecologists at the meeting of the Congress of Physicians and Surgeons in Washington. I again find my name in the new program to report upon the same subject. It would not be courteous to the members of this society for me to read that paper again, for an extended abstract of it has been published in many of the medical journals in different sections of the country.

But that I may in a degree fulfil my promise, I have concluded to report a successful vaginal hysterectomy which I did in October, and to make some remarks upon the improved technique of the operation, especially upon that part of the details relating to hemostasis. I operated in the forenoon of October 9th, at the Norton Infirmary, of Louisville, on Mrs. B. A., thirty-four years old, of Irish descent, and a mother of five children. When she consulted me, about the first of August, she was suffering with nearly constant bleeding, the blood being mixed with an offensive matter. Her digestive and assimilative function were not good, and she was badly nourished; she was losing flesh rapidly, and her general appearance indicated approaching cachexia.

I concluded from the history she gave me of her trouble, that the disease began from twelve to eighteen months before I saw her. Upon examination I found carcinoma of the cervix uteri extending up the endometrium, but not involving the vagina or any of the uterine annexa. The uterus was in normal position and perfectly movable, and no enlargement of pelvic or other glands could be detected. I did not believe all the disease could be removed except by total extirpation of the uterus, and advised her to have the operation done as soon as I could succeed in temporarily improving her local and general condition. She lost but little more blood, and by the first of October looked and felt much better, and there was hardly any further extension of the cancer.

She was prepared for the operation by being well purged, carefully bathed, and the vagina washed out with two gallons of hot water. The hair was cut from her pubes, and the parts washed well with ether, and a 1-2000 solution of bichloride of mercury. The instruments, sponges, etc., were prepared with all the aseptic care that should govern us in doing successful abdominal surgery. I was assisted in the operation by Drs. H. H. Grant, J. B. Marvin, J. M. Mathews, H. Orendorf, and F. C. Simpson. The water was boiled, and the instruments and sponges were put by the nurse in weak carbolic acid solution. Chloroform was administered and the operation done after the following fashion. The woman was put in the exaggerated lithotomy position, and the neck of the uterus exposed by a Sims' speculum and retractors, and drawn to the vulva with a heavy volsellum forceps. The vagina was cut away from the cervix at a distance of about one fourth of an inch from its attachment, and two or three small bleeding arteries secured by catch forceps. Further dissections posteriorly and anteriorly were made with the finger. The pouch of Douglas was first opened and all posterior attachments of the uterus rapidly separated; then the uterus was carefully dissected from the bladder, great caution being observed to prevent wounding this organ or the ureters. Finally all that held the uterus in position had been divided except the folds of the broad ligaments. The index finger was now hooked well over the left ligament and it was secured at a distance from the uterus by a catch forceps of my device, which I here show you. The right ligament was clamped in the same way. Both ligaments were then divided with the scissors near the clamps, and the uterus, ovaries and tubes, were pulled away through the vulva.

The uterus was not inverted, and was removed in just twenty minutes. To prevent the possibility of hemorrhage, all bleeding surfaces or points were caught in catch forceps, so that when the operation was done eight pairs were left in the vagina. She did not lose more than one or two ounces of blood during operation and none after it. The

small forceps were removed in twenty-eight hours, and the two large ones clamping the broad ligaments were removed in fifty-two hours. A small pledget of sublimated cotton was introduced in the vagina to hold the forceps apart and to aid drainage, and the vulva was well covered with absorbent cotton and a T bandage applied. No sutures were used to control hemorrhage or to unite surfaces, and the vaginal vault was left open. The cotton was removed from the vagina when the small forceps were taken off, and it was subsequently used only as a dressing over the vulva. The discharge of necrosed matter which had been destroyed by the forceps was rather profuse and offensive for a few days, but after one week it had nearly ceased and was not at all offensive in odor. No vaginal washes were used, but the dressing was removed twice daily and the external parts carefully cleansed. She was allowed to lie on her back or sides, as she preferred, and her water was drawn for one week. Her bowels were moved on the sixth day with sulphate of magnesia, and moved every day or every second day afterward. She had beef peptonoids, beef tea and mutton broth for three or four days, then she began to take milk and a little solid food, each day increasing the quantity and after the eighth day she took house diet. She suffered two days from the presence of the forceps, and for two days more from an irritability of the bladder. She was given during this suffering one-sixth of a grain of morphine two or three times daily. Her pulse after the operation and during the first day was sixty beats per minute. It then ranged from sixty to ninety, seldom getting above seventy-five. Her temperature reached nearly 101° on the second day, probably caused by the local annoyance and pain from the clamps. It then ranged from 98° to 100°. At no time was there any shock or sepsis, and she made an uninterrupted recovery. She was out of bed on the 15th day, and left the Infirmary on the 19th day.

The vaginal vault had perfectly united at the end of one week. I have examined her several times since she left the Infirmary, and can detect no evidence of any return of the disease. Her general condition and appearance, and all her functions had improved about twenty-five per cent. at the end of the second week, and she has continued to get better; in fact, she looks and feels well and is going out on the street, and is attending to her domestic duties.

I interdicted sexual intercourse for three months, but probably this precaution is not entirely necessary, as there has been neither pain nor tenderness on pressure after the third week in the vagina or the pelvic or abdominal cavities.

A careful microscopic examination of the specimen removed was made by Mr. Simon Flexner, who reports as follows:

LOUISVILLE, KY., Nov. 3, 1888.

MY DEAR DOCTOR.—Herewith I beg leave to submit a report on the examination of a specimen handed to me. The specimen consisted of uterus, tubes and ovaries just removed. The uterus had suffered marked change in configuration. The cervix was changed most, and was the seat of evident degenerative change.

The degenerative process could be traced by the unaided eye through the cervix and about one-half the length of the fundus, where the tissue had a more healthy appearance. This limitation of degenerative process was subsequently confirmed by microscopical examination, as will appear. The tubes were apparently in a healthy condition and the ovaries presented no abnormal features save a few cysts.

On microscopical examination the growth involving the cervix proved to be adeno-carcinoma. As before indicated, the new process extended into the body of the uterus disappearing about its center. In the mucous membrane of this portion there is considerable hyperplasia of the normally present spindle cells, and foci of round cells are occasionally observable. The glandular structure, however, appeared quite normal. Microscopical examination of one ovary at the point where it is attached to the tube shows no degenerative change. Some connective tissue

proliferation had taken place. Beyond this I could observe no change.

The tubes were not examined microscopically.

Pieces from which sections were made were immediately removed and hardened in alcohol. Very truly,

SIMON FLEXNER.

Asepsis, or perfect surgical cleanliness, should be enforced in every detail of the operation. Weak solution of disinfectants may be used, but I doubt their efficacy, and strong solutions are positively poisonous. I believe the success of vaginal hysterectomy depends largely upon absolute surgical cleanliness, rapidity in operating and a perfect hemostasis. When the operation is prolonged, and the woman is kept for one or more hours under the influence of an anesthetic, or loses much blood, she is in relatively greatly danger of death from shock or sepsis. By the use of clamps to control all hemorrhage the technique of the operation is so much simplified and improved, that the uterus, etc., can be removed in from ten to twenty minutes, and the loss of blood is no longer an important factor. The clamps also afford an excellent means of drainage and do away with the necessity of a drainage tube. But if we follow the technique of Schroeder, Martin, and others, and use sutures to control hemorrhage, and to unite the vaginal and peritoneal surfaces or to close the vaginal vault, it will require from one to two hours to complete the operation, and the hemostasis is not so perfect. Results have shown that it is best not to close the vaginal opening; and experience has demonstrated that the supposed dangers resulting from intestinal or omental protrusion in the vagina, are mostly imaginary; at least they are reduced to a minimum.

I believe that the mortality in vaginal hysterectomy can be reduced as low as that in ovariotomy, but I beg to repeat what I have said at another time. "That it is positively criminal for any one to attempt to extirpate a cancerous uterus, or to do pelvic or abdominal surgery until he learns the anatomy, physiology and pathology of the pelvic and abdominal structures, and knows how to make a correct diagnosis where it is possible to do so; he should also know the general principles and the details of the most approved technique for such operation." Nor should the uterus be removed if there is any evidence of cancerous cachexia, or if in a careful physical examination any structure outside of the uterus in the pelvic cavity is found to be infected. A microscopical examination of a part of the removed tissue by an experienced microscopist and pathologist may aid us very much in diagnosticating cancer of the uterus in its incipiency, when we may expect the best immediate and subsequent results from vaginal hysterectomy.

IMPROVEMENT IN CATHETERS.—We have received from Messrs. Hockin, Wilson, and Co. specimens of their new catheters, with "patent unbreakable eye". By this patent a metal eye is introduced into the catheter, and the end gains firmness and strength. The metal is invisible, but renders that part in which it is placed, usually the weakest of any in the instruments, by far the strongest; the catheter is thus rendered very durable. Another important improvement is the termination of the channel of the catheter at the eye, thus rendering the process of cleansing easy and more certain. These catheters are perfectly soft and pliable, and will stand any heat. Their framework is said to be carefully woven Belfast linen thread, covered by a new method with extremely elastic gum. These instruments are likely to be in much demand for certain cases of retention, and for those in which it is necessary for the patient to pass a catheter for himself.—*London Lancet.*

DR. C. CUTLER SMITH reports in the *Independent Practitioner*, that he has performed the operation of implantation of teeth in twelve cases, and while the work has all been done within the past twelve months the results so far have been to his entire satisfaction. If implanted teeth prove to be permanent this operation will indeed be a boon to humanity.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, DECEMBER 15, 1888.

IMAGINARY LINGUAL ULCERATION.

A patient complains of intense pain usually of a lancinating or darting character, limited to one-half the tongue, usually the left, and extending from its base, just opposite and below the tonsil forward to its tip, or the pain may be more circumscribed and limited to the junction of the posterior and middle third of the organ, at or near the location of the posterior lenticular papilla. It is more or less intermittent, rarely constant, is aggravated by movements of the tongue, although these are free; is often increased by the act of mastication and excited by hot or irritating articles of food. Its effect upon the patient is demoralizing, his imagination plays him false, his terrors are aroused, and injudicious medical or surgical interference and advice, instead of allaying both mental and physical disturbance, not infrequently excite them; the fear of cancer, and the belief, which remains unshaken, that ulceration actually exists, constitute an integral part and important factor in this curious affection. The affection has been met with in those who present no evidences of a neurotic or even nervous temperment; it is occasionally seen in individuals presenting all the signs of robust health. Subjective symptoms, other than the pain as described and occasionally slight salivation, if it be excessive, do not exist. When the tongue is drawn forth, it appears normal, and on the surgeon's attention being directed by the patient to a point on the line of demarcation between the roughened epithelium of the organ and the smooth mucous membrane below, a lateral line, marked by the presence of a few delicate papillæ, the structures in this region are also seen to be normal. Plausible suspicions of reflex influences are usually lacking.

The disease, as above described by Dr. Lefferts in a paper read before the American Laryngological Association (*Med. News*), has been named by Vernuil "Imaginary Lingual Ulceration." The theories have been advanced concerning its causation: (1) pure lingual neuralgia, akin to Velpeau's imaginary tumor of the breast, also characterized by intense local pain without appreciable lesion; (2) hypochondriasis; (3) mistaking a papilla, or a patch of lingual psoriasis for an ulcer; (4) irritable papillæ in the *regio foliata.*

Local caustic applications are dangerous and ineffective; cocaine or aconite locally sometimes succeed and often fail. Electricity is usually of service. Hypodermatic injections of analgesic drugs have been recommended. Neurotomy is out of the question, there is no means of knowing whether the lingual or the glosso-pharyngeal is the nerve at fault. Dr. Lefferts regretted that experience had taught him nothing that is uniformly successful in its results.

PURULENT PERICARDITIS TREATED BY INCISION AND DRAINAGE.

At the meeting of the Clinical Society of London, Nov. 23, the following cases were related:

Case I. (Dr. Dickinson) Boy, æt. 10, gluteal abscess followed by effusion into left pleura and pericardium, and edema of face and chest; much dyspnea, blueness, irregularity of pulse; left pleural and precordial regions dull. Pleura aspirated four times in ten days (June 18–28); dyspnea, blueness and edema slightly and temporarily relieved by each operation. June 30, pericardium aspirated in right fifth intercostal space, and an ounce of creamy pus withdrawn. July 8, twelve ounces; July 15, nineteen ounces. The heart was drawn to the left before each

operation by a preceding evacuation of the pleura. July 22, pericardium as full as ever, symptoms as distressing as before. Pericardium incised at point of previous punctures and drainage tube inserted; some faintness, subsequently great relief. Complete recovery; in nine weeks no remnant of incision except small cicatrix moving with each heart beat. Precordial friction sounds could be recognized on only one occasion. Said to be the third successful case on record.

Case II. Pyopericarditis occurring in fifth week of osteomyelitis; girl, æt. 9. Tapping followed by re-occurrence; free incision of pericardium; sac contained thick shreds and pus. An attempt at irrigation resulted in immediate death.

Case III. A woman, æt. 45; primary pericarditis. Seen on fourteenth day of illness; had had shiverings, temperature of 102°, and edema of arm. Was lying in bed with livid face, cold, livid limbs, irregular pulse of 120; no dyspnea. Precordial dulness considerable; dulness at bases of both lungs. No operation; died in three or four days.

Post-mortem.—Slight pleurisy of left side; two and one-half pints of pus in the pericardium.

Case IV. Right ventricle wounded in tapping; death in five minutes.

Other cases were mentioned. In the discussion the frequent latency of the affection was dwelt upon. It was impossible to distinguish between purulent and serous exudation except by exploratory puncture. If purulent, evacuation should always be done. Whether incision was to be preferred to aspiration was still a moot point. Probably the site for operation had better be the right, fifth or fourth intercostal space near the sternal margin. In children the internal mammary arteries ran close to the edge of the sternum and might be wounded. The trocar used in tapping should be directed toward the middle line.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated meeting Nov. 7, 1888.

Dr. Baldy read a paper on the "Treatment of Peritonitis," see Review, Dec. 1.

Dr. Meigs read a paper on "Treatment of Peritonitis," (see page 657).

Discussion.

Dr. J. H. Musser.—I have but little, if anything, to add to the able remarks of the gentlemen who preceded me, unless it be my own personal experience. While interested, and in a measure agreeing with the remarks of Dr. Baldy, yet, as a medical man, I must largely agree with the conservative views of Dr. Meigs. In one respect, however, I beg leave to differ, and I believe that cases of idiopathic or so-called functional (?) peritonitis must be very rare, for in the course of a tolerably large experience I have not met with any; but, on the other, have had frequent cases that originated from some local cause, indeed, it is my belief that in every instance almost, some disease, acute or chronic, in the intestinal tract, or disease of the organs covered by the peritoneum, is the cause of inflammation of that membrane, apart from septic or microbic causes. A successful treatment of all cases, therefore, must depend, in the first place, upon the recognition of the many antecedent pathological conditions that may be considered as causal. A large majority of the cases that I have seen got well without resorting to surgical measures. In these instances a similar plan of treatment to that suggested by Dr. Meigs was to a certain extent carried out, notwithstanding the fact that a local or a focal origin, if you please, of peritonitis could always be determined, and the general and local medical treatment will often either prevent, or at least counteract the deleterious effects of a general inflammation, as before intimated. The plan of treatment which I have carried out in most of the cases has been rather simple, beginning in the first place with local depletory measures either by blister or by local depletion with leeches, not

fearing the depressing effects of local depletion, but rather encouraging further bleeding than otherwise, following the depletion by poultices, and possibly by general stimulating applications, such as turpentine. At the same time I endeavor to open the bowels as early as possible, and while on the one hand, vegetable cathartics are of service, yet to me, on account generally of the excessive vomiting, some mercurial has usually been preferred. I use principally, if vomiting is present or not, calomel in doses of one-twelfth, one-eighth, or one-fourth of a grain every hour or half hour, until the desired effect is produced, and, in addition to the purgative effect, I am, indeed, not disturbed if I can get a constitutionol effect of the drug also, for, as you well know, its antiphlogistic effects in peritonitis are undoubted. With regard to opium, I use it simply to relieve pain, and hence, in the smallest doses possble. I prefer the hypodermic injection of morphia, and it is surprising frequently what small doses are sufficient to give comfort. Sometimes an eighth or a sixteenth of a grain, twice daily, will suffice. In addition to the anodyne effects of the drug, its stimulating effect is, of course, of service, and after the mercurial has acted on the bowels, I combine the extract of opium with the drug, giving the opium more frequently, and the mercury less. Usually I use atropia with the morphia, and in this way counteract the depressing effects of the opiate. Stimulants are worthy of mention. I begin their use early in order to avert or to mitigate the stage of collapse which is likely to ensue. With this general plan of treatment, bleeding, moderate purgation, opium to relieve pain, and the use of stimulants, my patients have usually recovered. I may very often endeavor to give in some way quinine, preferably by suppositories.

Patients die of peritonitis generally, not because its management is not understood, because it is not recognized sufficiently early. Hasty examinations without due regard to the local origin of the symptoms of the disease—and of these pain is usually the earliest—cause one frequently to overlook the exact condition of the case. Two cases I have seen lately, one in consultation, another at the autopsy, illustrate this. They were both cases of peri-cecal abscess. In the one instance the patient was ill for four or five days days prior to my visit. Prior to the last 24 hours he visited the physician's office, simply complaining of recurring attacks of sharp abdominal pains, which were attended with a moderate amount of diarrhea. The physician looked upon it as a case of cholera morbus, and treated it accordingly. The day of death the patient did not leave his bed, but was visited by the physician who was horrified to find him in collapse. Unable to recognize the cause of collapse, not even suspecting that death was imminent, he asked me to see the patient. The thready pulse, the persistent watery vomiting or regurgitation of fluid, the cold sweat and the cold extremities, the tympany and the rigid abdominal muscles, told the tale more plainly than his words,and an area of dulness in the right iliac fossa, with faint local swelling and tenderness, pointed to the appendix as the probable source of the inflammation. Death ensued a short time afterward, and at the autopsy a most extensive peritonitis, secondary to rupture of the vermiform appendix and pericecal abscess, was found. In the other instance the patient, a lad of 16 years old, was seen by the physician at six in the evening. In the hurry of his work he neglected the minute examination which he usually bestowed upon them, and prescribed for what he thought was a colic, induced by indigestion, which colicky pains had been going on for two or three days, the patient, however, being out most of the time. He saw him later in the evening, much improved, apparently, from the effects of opium, so often misleading because it masks symptoms, and was shocked to hear the next morning that at six o'clock his patient had died in collapse. In this case foreign bodies in the appendix had caused the usual rupture, with peritonitis and death. So, too, peritonitis arises, as you know, after inflammation of the tubes or

ovaries, after disease of the biliary passages, and after other instance of local diseases.

The most difficult question for the physician to decide, and the one that has always been the most serious in my mind, next to the grave question of when to open the bowels, is when to ask the surgeon's help. Given a case with a palpable tumor, with local œdema, the fever, the vomiting and the general tenderness indicating a general inflammation, and the question is an easy one to decide. On the other hand, the tumor being obscure, possibly only an area of dulness outlines it, the symptoms, however, becoming threatening, shall we then ask for help? I always do, of course, when in doubt; but I am fixed in my mind to have surgical aid and instruct the family to that effect when persistent vomiting continues, when the night-sweats become marked, and when tympany and bowel obstruction are decided. Indeed, after the second night-sweat, even if there is no general peritonitis, but physical signs or clinical phenomena of local disease, I am much disturbed. Then, too, the increased frequency of pulse, or perhaps the signs of approaching collapse, which thus far, in my cases I have not waited for, would induce me at once to ask for a surgeon.

A word in regard to salines,of which I have mentioned nothing before. I have never been impressed with their value in peritonitis, although I have seen some of my colleagues administer them. In but one instance were they of any service, and this was after an abdominal section. But in all probability persons with a larger experience than I have had may see benefit. Let me not mislead any to think all my cases got well by medicinal treatment. Drs. Keen, Price, and Kelly will testify that I have sought the benefit of their skill several times.

A word in regard to a variety of peritonitis which I have neglected to mention, and that is, the so-called cases of recurring peritonitis. In a large majority of instances they are secondary to tubal disease or disease of the appendix; and if a second attack occurs in a patient of mine I advise at once operative interference, either before the attack has terminated or after the attack has subsided.

In corroboration of my remarks as to the value of the medical treatment of peritonitis, let me quote, if you please, the experience of my friend, Dr. Girvin, which, as you know, has been large, and who is a most careful, astute physician. He told me just recently that he has never lost a case of peritonitis, and that his plan of treatment is the use of some remedies to open the bowels, along with the use of remedies to allay the pain. To open the bowels he usually gives a pill containing a quarter or a half grain of calomel, half a grain of extract of rhubarb, half a grain of the extract of opium. Giving the pill early, he very soon secures a purgative effect, and when that is induced feels much more comfortable in regard to the welfare of his patient. He uses morphia by subcutaneous injection, and only in sufficient doses to keep the patient comfortable throughout the illness.

(Dr. Musser was compelled to leave the room before the discussion closed, but has learned that Dr. Baldy asked why he should endeavor to open the bowels early in a case of peritonitis. The Doctor begs to add this, which is the only explanation which has satisfied himself, and which he gives, of course, with reserve, as he does not believe it has been previously mentioned. Take, for instance, a case of appendicitis with rupture. We know that the inflammation is always due to obstruction in the canal. If such obstruction breeds deleterious effects in this canal, a similar obstruction would produce the same bad effects in the larger canal, the intestine; and, in addition to an inflammation of the serous coat,a retention inflammation is set up, and an enteritis complicates the case. Moreover, great danger in peritonitis arises from the tympany, no doubt, and to prevent it the lumen of the canal must be opened early, for if not, the bowel paresis which ensues in peritonitis, and which contributes to the tympany, will prevent clearing the canal.)

Dr. John B. Roberts.—On general principles I object to opium after operative procedures. The question to-night seems to be

dogmatically settled by gentlemen of large experience. I was brought up on the opium treatment and have employed it. I believe now that it was a mistake in many cases.

Dr. M. Price.—I do not believe that peritonitis is ever idiopathic. Call it by what name you please, it resolves itself into some irritation or lesion. Carbolic acid, almost pure, and phenol sodique, in its full strength, I have known to be poured undiluted into an abdomen after an operation. There will always be peritonitis after operations until so-called antiseptic surgery of the peritoneum is abolished. Mr. Tait is correct in saying that the opium treatment has its place only when you have given up all hope of curing the patient and want to make him comfortable. You make him perpetually comfortable. You not only put the bowels in splints but the whole body in a fracture-box. Prof. George B. Wood, thirty years ago, advocated after-bleeding, calomel, and purging with Epsom salts and senna, and perhaps somebody suggested it before him. But in recent times the credit of the saline treatment belongs to Mr. Tait, and Dr. Baldy does not claim it. Something was said of five days' treatment. The case should be in the surgeon's hands before that. There is already pus.

The tympany is of several kinds. The distention is often the cause of death. I have opened the belly and found a diverticulum adherent to omentum, with the intestine through it; the intestine was returned without difficulty; the distention was the cause of death. Many cases that recover are of such character. If we knew it, purging would be out of place. In operations when there are sharp pain and indications of inflammation, then we do not wait. We open the belly and supply moisture. We pour in hot water—gallons of it—and give turpentine enemata and Epsom salts.

The bowels are already in splints. I have given six ounces of Epsom salts where ordinarily half an ounce would answer. As soon as free movement occurs the patient recovers.

Dr. C. B. Nancrede.—As I was the first surgeon in this city to open the belly for shot-wound, and as I never hesitate to operate on abdominal cases when necessary, I cannot be accused of timidity. But is it not time to draw the line when we are told that all cases of peritonitis which do not at once improve should be treated with the knife? I am a living specimen of recovery without section after an appendicitis.

No one has here advocated the use of a drug valuable in the sudden collapse incident to the onset or in the later stages of some cases of peritonitis, when opium means death. That drug is atropine, hypodermically, in large doses. If it is true that the vast majority of, if not all, cases of peritonitis are secondary—or, in other words, infectious—there are many experiments besides those quoted to-night, shedding a flood of light upon the subject, which show that the peritoneum can take care not only of fluids or foreign bodies, but even of pathogenic organisms and feces, provided that the quantity introduced during a given time does not exceed a certain limit. If all the material can be absorbed in an hour or two the animal is safe. If that limit is exceeded, we have general suppurative peritonitis. Here the eliminative treatment finds its explanation in preventing a general peritonitis, as the peritoneum is only an enormous lymph sac.

If opium is only to be given to relieve pain, this is not what was formerly understood by the opium treatment. It will not splint the bowel in mere anodyne doses, which was Alonzo's Clark's original idea, and that of all their follower's since.

I disagree with the medical gentlemen who would send for the surgeon to lock the stable door after the horse has escaped, in other words, wait, as is too often the case, until an operation is what is termed a "last resort," which amounts really to there being no reasonable chance for a success which an earlier resort to the knife would have very probably insured. The surgeon should be permitted to see the case early, and share in the decision as to when the operation should be done, when it should be postponed and when declined; it is only by the

chance afforded by the study of the medical course pursued by the case, that the surgeon can operate intelligently and successfully.

I am using less opium as I grow older in all surgical work. I have tried the saline treatment of peritonitis in several cases after section, and I have had no cause to regret it.

Dr. Joseph Price.—I have learned something new to-night, that abdominal distention impedes the locomotion of germs. I am glad to be enlightened on this point; it will be of very great value to the class of operators who fear them so much. Experienced operators in abdominal surgery fully recognize the deleterious effects, and the great danger of distention. The mere presence of an excess of fluid or gas in the intestine is, in itself, an efficient cause of obstruction. I am not prepared to accept such counsel. I would much rather incise the bowel, and thus favor the evacuation of gas and drainage of intestinal contents. Dr. Meigs counsels delay. On the contrary, the earlier and simpler the operation the greater is the chance of recovery. I cannot, therefore, conceive any advice more unfortunate, more unjustifiable for patients dying of peritonitis. In fact, the whole tendency of modern surgery is to anticipate exhaustion, shock and collapse. The paper of Dr. Baldy referred to peritonitis, and not to pain and tenderness, and my remarks are devoted to peritonitis due to a recognized lesion, and not to pain and tenderness.

The treatment of peritonitis resulting from external or infectious origin would be entirely irrational were drainage discarded. Once decide that the best method of clearing up a peritonitis is by operation, then drainage must follow that operation as naturally as sutures are used to close an incision.

If a peritonitis is septic in its origin, such as is seen frequently after criminal abortion, carelessness after miscarriage, and after gonorrheal tubal disease, drainage is the third statement of the argument of operation.

1. Operation is required.

2. Douching and flooding the abdomen are necessary.

3. Drainage is the bulwark of the whole procedure.

That cases of infectious peritonitis recover without drainage, is no more an argument against it than that some patients recover from smallpox, never having been vaccinated.

If I use all the antisepsis possible before and during an operation, and at its close overlook the fact that I am leaving a possible infection behind, my antisepsis is only a parade, and misleading.

If Listerism is the foundation of modern surgery, drainage is the keystone of its application in such cases of abdominal surgery.

Dr. Longaker.—From the remarks of the previous speakers it has appeared that the opinion held of the value of opium in peritonitis depends upon the question, is it ever an idiopathic disease? My own views are that it is not, I have never seen a case in which it was. In general I agree with Dr. Baldy.

In the transactions of the Pennsylvania State Society for 1888, vol. xix. p. 103, there is reported a case in which abdominal section was done for puerperal peritonitis. It was one of the first cases operated on in this city.

In June, of the present year, I operated on a second case, whose history is very interesting. Female, age 26 years, married 14 months. About two years before, she "caught cold" during her menses. Her periods became painful, and a physician was consulted. Weekly intrauterine applications were made, but as there was no improvement, and as the treatment was extremely painful for hours, other advice was sought. Two months before my visit, she fell into the hands of the gentleman with whom I saw her. He found the uterus fixed by a mass in Douglas's cul-de-sac; sound entered two inches. At her next period the doctor was called up in the middle of the night because of great suffering. She passed from bad to worse, and on the day preceding my visit developed unmistakable signs of general peritonitis. She failed to get any relief in spite of grs. ij ext. of opium by suppository. Magnesium sulphate, ℥j dissolved in hot water, was ordered to be given every hour. It relieved the obstinate

constipation,and gave her far more relief than the opium. Twenty-four hours later abdominal section was made. Pus was found in the abdominal cavity. Irrigation and drainage were used. All her symptoms improved, but, on the fourth day she began to fail, and died on the fifth. Autopsy revealed obstruction of the bowels. It also showed a ruptured pelvic abscess, situated in the appendages of the left side. The peritoneal cavity contained no fluid, and the operation had arrested the course of the disease. A knuckle of ileum had become adherent to the pelvic viscera, causing obstruction and death.

The case is a warning to those who are in the habit of treating the endometrium promiscuously.

Dr. J. Tyson.—I came to the meeting to-night attracted by the subject under discussion rather than to make any remarks, but I feel disposed to give expression to the general impression left upon my mind by this debate. I confess that when I heard Dr. Meigs portray his typical case of peritonitis I felt that the treatment he advocated would be the one I should always prefer to follow. Yet I do not think the parallel he drew between the state of the perineum in peritonitis and that of a "sore" is altogether justified. The inflamed peritoneum is rather to be compared to the earlier stages of inflammation in which we resort to leeching and depletion, and I have, by what has been said since, been strongly impressed by the rational character of the saline aperient treatment. It has the further advantage in quickly cutting short those doubtful cases in which a fecal accumulation is producing pain, the first symptom of inflammation, which disappear at once with its cause—the fecal mass.

I desire to call attention to a fact not mentioned, that rheumatism of the abdominal muscles sometimes simulates peritonitis so closely as totally to mislead. I have myself had this experience, and seen the symptoms yield with magical promptness to salicylate of sodium.

Dr. Meigs.—I cannot see why anyone should doubt the possibility of the occurrence of idiopathic peritonitis any more than of idiopathic pleurisy. There is no reason, in the nature of things, why it should not occur, and that some physicians have not met with it is no proof that others who say they have are mistaken. Pleurisy, by extention of the inflammation, may be the cause of pericarditis, and in cases of diaphragmatic pleurisy peritonitis to some extent is a common secondary result. If there be diarrhea, with inflammation of the mucous coat of the bowel, why should it not give rise to peritonitis?

It seems to me that in the discussion the difference between peritonitis, as seen by those of us who are not surgeons and the disease as a sequel of operations, has not been sufficiently kept in mind.

Dr. Baldy.—Dr. Meigs and Dr. Musser believe in the opium treatment,and yet after giving opium for a few days they give purgatives. I should like to ask them what object they have in view when they give the purgatives, and what they expect to accomplish with them?

Theoretically it is perfectly possible to have idiopathic peritonitis. Practically, however, I have never seen it. Some of the gentlemen in discussing this subject seem to draw a line between the cases of peritonitis seen by the physician and those seen by the surgeon. Peritonitis is peritonitis the world over. It makes no difference whether it is set up by the surgeon himself or comes on idiopathically (so called): the result is always the same—inflammation of the peritoneum; the cause cannot alter the principles of treatment. My paper discussed peritonitis and not simply pain and distention; as for an inflammation throwing out a bland fluid. I do not believe it. The products of inflammation are always irritating. Opium has been advocated here to-night in small doses and to relieve pain. In my experience small doses will not relieve pain. The dose must be comparatively enormous. Purgatives will relieve the pain as quickly as opium, and when once relieved it remains relieved, which it does not do with opium. If I were aiming at the relief of pain solely, I should most decidedly turn to my salines.

The objection has been made that salines give watery stools and do not carry away much feces. Of course, it is desirable that the fecal matter should come away, and so it does in great part. But large, watery stools are exactly what we desire to obtain. The whole principle of the treatment lies in its depleting powers. For this purpose the salines are given in large and concentrated solutions; they are peculiarly adapted to the early and highly inflammatory stages of inflammation. If purgatives are going to relieve, they will do so quickly, and we have no need of waiting for four or five days to know what to do next. Often, unless we use the knife, our patient is dead in five days. Recurring peritonitis always demands surgical interference.

Together with Dr. M. Price, I have but one use for opium in this disease—if everything else has failed, it is a good thing to give ad libitum, to ease the last hours of the patient.

SELECTIONS.

Cocaine Toxemia—Cocaine with Chloroform as an Anesthetic.—A Berlin correspondent to the *Med. Age* writes : Quite recently a case of cocaine intoxication occurred here which deserves our earnest attention. A previously healthy young lady, aged 19, went to a dentist in order to be relieved from a violent toothache which for the two days had prevented her from taking any food or sleep. The dentist injected three-fourths of a syringe of a 15 per cent solution of cocaine, *i. e.*, 0.1125 in two portions, in quick succession and extracted the tooth painlessly. The result of this apparently quite normal dose of cocaine caused the most violent cocaine intoxication yet recorded. The patient suddenly grew pale and fell back in profound coma, which was soon followed by violent clonic convulsions. Neither nitrite of amyl, nor applications of cold water had the slightest effect on the patient, who soon grew cyanosed. The pulse registered 180 and more, the respiration 44. When raised, the patient fell back again and could not even lift her arms. Examination revealed besides photophobia, diminished sensibility of the cutis, anesthesia of the mucous membranes of the nose and mouth and complete loss of the sense of smell. Soon another group of symptoms appeared, among which were specially notable cardialgia, urinary continence for 24 hours, insomnia for 30 hours and loss of appetite for four days. Recovery was very slow, though complete.

This remarkable occurrence ought to have the result of making us more cautions in the application of cocaine. At the same time the question arises, what is a normal or safe dose of cocaine for hypodermic use? Landerer, who first recommended cocaine for subcutaneous application. fixed the normal dose as 0.015, Decker as 0.02. Still the tolerance of cocaine is very various, as Frankel, of Vienna, has in a certain case used 10 syringes of a 1 per cent solution, *i. e.*, 0.1 of cocaine, and Schmitt, of Frankfort-on-the-Main, 5 syringes of a 4 per cent solution, in other words 0.2 of cocaine without any untoward result. In extraction of a tooth 0.05 is probably an equally safe and efficient dose, while in greater surgical interference this dose can safely be doubled or trebled.

The application of cocaine in a new direction will certainly be of interest to American practitioners. Prof. Obalinski has successfully introduced cocaine as a constituent of a new anesthetic mixture. Obalinski has for some time been engaged in experimenting with anesthetic agents or mixtures which were to be free from the inconveniences and dangers of ether or chloroform. He was led to the use of cocaine by inductive reasoning. He knew cocaine to be effective in hyperemias, and that on account of its power to quickly raise the respiratory and cardiac functions it was distinctly antagonistic to chloroform and to hydrate of choral. The experimenter therefore concluded to combine cocaine with chloroform. His observations showed that with the use of chloroform vomiting took place in 31 per cent of all cases. If, however, before the use of chloroform the patient received 1 to 3 cg., of cocaine, vomiting took place in 20 per cent of all cases. Still better results

were obtained with a mixture of cocaine and chloroform. First pure chloroform was given in the Esmarch mask until the phase of tolerance had been reached (usually 4 to 12 gm. in 4 to 12 minutes). Then a sufficient quantity of a 3 to 5 per cent solution of cocaine is injected into the vicinity of the operative field so as to make the entire quantity injected 3 to 5 cg. After this application of cocaine (which can also be increased) no chloroform is given as a rule, though very small doses in considerable intervals are permissable. Obalinski has used this mixture thus far in 24 cases among which there were amputations of the femur and a herniotomy, and expresses himself as well gratified with the results obtained. He claims as advantage of his mixture over pure chloroform, greater safety, less frequent vomiting and absence of all unpleasant sensations on coming to.

Poisonous Action of Petroleum.—Lewin, in *Virchow's Archiv.*, gives the results of a study of this subject. The latter part alone interests us at present. Many observers have reported various skin lesions resulting from the use of petroleum in the treatment of the itch—such as wheals, small ulcers upon erysipelatous bases,and an eruption of acuminate vessels upon a red base. Lewin has investigated this country and observed the effects of petroleum upon the operatives in Pennsylvania. He found that the heavy oil was very different in its effects from the light oil. The workers upon the oil pumps are affected with an eruption of hazel-nut sized, transparent white boils. These affect both young and old, and last in some cases a year or more, in others but a few weeks. The common form of eruption is an outbreak of equal sized pimples and boils, which do not itch, and are located upon the arms and hands. In some laborers the disease relapses frequently. Some escape the disease entirely. Frequent washings of the skin with soap seemed to lessen the tendency to the production of these boils. Sometimes nearly the whole of the skin is affected. Those laborers who are not in constant contact with the raw product escape the eruption. In the refining works, those who handled the light oil and the kerosene were not affected, while those who handled the heavy product left after refining were so, especially when they neglected frequent washing of their hands and face Some skins become accustomed to the irritation in a few weeks or months and react no more, while some skins never become habituated. The disease produced is essentially an acne; red, hard papules with a central black point upon an indurated reddened base. Furuncles also were scattered about. Some papules were surmounted by a vesicle; if located about a hair follicle, the hair was frequently wanting, and a gaping opening was left. These were seen most frequently on the arms and legs. This disturbance was caused by the irritation of the follicles of the skin by petroleum.—*Amer. Med. Digest.*

Local Anesthetic Action of Antipyrin.—Although antipyrin has been very warmly recommended for the relief of pain by See and others, when subcutaneously injected, its administration by this method has not come into general use in this country. See considers that it rivals morphine in the extent of its action, and that it has not the unpleasant after-effects of that drug, since it does not interfere with nutrition nor does it lead to a "craving". Even by the mouth, antipyrin in ten and fifteen grain doses is used extensively now in this country for all kinds of functional headaches and neuralgia; and it has been found a great adjunct in the treatment of these almost universal ailments. Berdach has lately been using antipyrin hypodermicallp in Prof. Bamberger's clinic in Vienna. He gives the drug in a 50 per cent solution, in distilled water, and has experienced nothing but favorable results. All kinds of painful conditions were so treated, the injeotion being made at the most painful spot. For a few seconds after administration there is local pain and burning, but this soon passes off, and is followed by an analgesia over an area of more than a centimetre round the point of injection. Frankel and others had previ-

ously noticed this. The most important point in Berdach's observations is that the pain is relieved in a few seconds after the injection, the relief lasting for at least six hours. No disagreeable effects such as vomiting, sweating rash on the skin, or depression of the heart or pulse, were noticed, and in those patients that were febrile the temperature remained uninfluenced. Berdach thinks it probable that the analgesia of antipyrin is produced by a local effect on the nerve endings in the skin. Reflex excitability, as has been shown by See and Demme, is greatly diminished; the nerve centers may also be affected. —*Brit. Med. Jour.*

Ankle Supports.—Physicians daily come in contact with cases of weak ankles due to sprains or too constant standing upon the feet. To all such we commend the application of the "Hackey Ankle Support," manufactured in St. Louis by Mr. E. Hackey, one of our most experienced shoe manufacturers, at 714 Pine Street.

This support is made of the best calf skin, so simply adjusted that a child can apply it. It may be laced as tight as desired.

It may at the proper time, when the conditions are favorable, replace steel braces, rubber stockings, linen and rubber bandages, plaster-paris casts, etc. It is of great service and possesses the merit of cheapness, the price being for a single support two dollars. May be ordered by mail, giving size of shoe worn.

Sanitariums.—There are now but few if any members of the medical profession who doubt the fact that certain classes of patients can be more satisfactorily and successfully treated in sanitariums than in the home.

No matter how well appointed and luxuriously furnished a home may be, it is necessarily lacking in many of the conveniences needful for the sick. In many cases of nervous trouble and other chronic conditions, it is desirable to secure freedom from home cares and annoyances, and the over attention of extra-zealous friends, and no where can this desideratum be gained so thoroughly as in a well equipped, eligibly located sanitarium.

The institution of this character at Battle Creek, Michigan, under the management of Dr. J. H. Kellogg, a physician whose name is familiar to the profession of the country through his excellent contributions to our medical literature, commends itself to our endorsement in that it is well equipped, admirably arranged, heathfully located, liberally conducted and directed by members of the regular profession, fully imbued with ethical principles, disposed to have every regard for the interests of patients referred to them and the doctors referring them. We would freely recommend physicians to correspond with Dr. Kellogg at the Sanitarium, Battle Creek, Michigan.

The Paris correspondent of the *Wiener Freie Presse* quotes the following regarding the critical analysis made by Dr. Fauvel, the noted Paris laryngologist, in reference to Mackenzie's book, "Frederick the Noble :"

"That which most surprises me is the fact that medication played a secondary role in the management of the case. I would have recommended the employment of Coca Mariani to rouse the flagging energies of the patient." * * * "My investigations, dating back to 1865, establish the fact that coca is a potent agent is combating debility. I have also shown that the injection of concentrated Coca (the Mariani) has a salutary influence on the laryngeal mucous membrane, alleviating pain and congestion. In Europe this remedy is relied on in cases of debility and where pain is a prominent symptom." * * * "As further proof the case of General Grant is cited, in which Drs. Fordyce Barker, Geo. F. Shrady, J. H. Douglas and Sands were active. Coca was employed in this case with success (the preparation exhibited being the Mariani), and it was stated by the attending physicians that without the use of this drug the general would not have been physically able to undergo the strain incidental to the work of finishing his Memoirs."—*Berliner Tageblatt.*

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 25. ST. LOUIS, DECEMBER 22, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

A RARE CASE OF OBSTRUCTION OF THE BOWELS.

BY A. H. MEISENBACH, M. D., ST. LOUIS.

H. O., a strong, healthy young man, 24 years of age, over six feet in height, and a laborer in a brick yard, went to work as usual on Friday morning, Aug. 17, in good health. Early in the forenoon he had the misfortune to fall down while wheeling a wheel-barrow full of clay, falling with his belly across the wheel-barrow. He complained immediately after of pain in the belly and had to quit work and rest. Pain seemed somewhat better after a while, and he worked on slowly till two o'clock P. M., when the pain in the belly became so great that he had to quit work for good and go home and lie down in bed. The pain began to get worse during the night, so that at about seven o'clock, A. M., Aug. 18, Dr. Schlosstein was sent for. (I am indebted to Dr. Schlosstein for the history of the case.) The above history of the fall was elicited from friends after the patient's death. It seems that the patient had never given the doctor a full and clear history of the fall or origin of the incipiency of the accident, the case to a certain extent being shrouded in mystery.

The condition which Dr. Schlosstein found him in was as follows: The patient complained of severe continuous pain in the belly, more severe at some than at other times. The abdomen was moderately distended. At a point an inch below and to the left of the navel the pain was greatest. The bowels had been regular up to date; urine also normal. Pulse 76 to 80; no fever. During the day the patient vomited several times after taking medicine. Vomit consisted mostly of mucus. Night, restless; slept one hour at a time; pain continued in spite of large doses of opium; no fever; no stool in spite of large clyters and purgatives.

Aug. 20. Pain still continuous; abdomen much distended and extensive meteorism; abdomen generally painful to the touch; pain most extensive from navel to the liver; gave opium in one grain doses every hour; drastic doses of calomel, jalap, croton oil, castor oil and large clyters without avail.

Aug. 21. Night, restless; increased meteorism; at times nausea but no vomiting; liver sound on percussion replaced by increased resonance. P. M. After large rectal injection, movement of bowel containing small masses of feces; somewhat easier.

Evening of Aug. 21. Collapse, pulse small, 120; no fever.

It was at this stage of the case that I was called in, and that I first saw the patient. Upon examining him I found that there was a generally distended condition of the abdomen. There was no fever, but a collapsed condition, so that every symptom seemed to indicate that he would pass off that night. The abdomen, as I said, was generally distended and very resonant, tympanitic meteoric all over its extent. The liver resonance was exaggerated, and there was very great dyspnea on account of the immense distension. At this time operative interference was proposed to the family, but they seemed to be stubborn, and refused to hear of such a thing, so palliative treatment was continued.

Wednesday, Aug. 22. Condition about the same; meteorism still continues; pulse 90 to 100; no fever.

I saw him the next morning with the doc-

tor and found that, with the exception of the pulse, which had rallied somewhat, the general symptoms were about the same. It was not possible to determine by percussion or otherwise, any tumor or hardening in any portion of the abdomen.

Wednesday, Aug. 22, the proposition to perform laparotomy was again made and rejected; treatment continued.

Thursday, Aug. 23, the patient was worse. Family now consented to operation, but the condition of the patient did not seem to warrant it; the indications seemed to be that the patient would not be able to stand the anesthetic. During the day the patient vomited some colored masses. This was the first time during the history of the case that there had been stercoraceous vomiting.

Friday, Aug. 24, the patient died during the afternoon, eight days from the incipiency of the trouble.

A post-mortem was made, 24 hours after death. The abdomen was symmetrically distended. The incision was made in the median line from the ensiform cartilage to the pubic bone. When the incision was made through the peritoneum in the epigastric region fecal matter followed the track of the knife, and it was supposed that fecal matter was in the peritoneal cavity. On laying open the peritoneal cavity freely it was found that a cut had been made into what was supposed to be the stomach, but which on closer examination proved to be the distended and dislocated cecum, which occupied the left half of the epigastric region, right hypochondriac region, right lumbar region and right half of umbilical region. The stomach was immensely distended and was vertical in position, and occupied the left hypochondriac region, left half of epigastric region and left upper half of umbilical region. The liver was crowded upward almost to the second intercostal space, as was also the spleen and diaphragm; liver and spleen normal; bowels immensely distended, much injested, and in places coils were glued together by recent plastic lymph, peritoneum also injested, showing traces of peritonitis. There was quite a quantity of serum in the peritoneal cavity. After much trouble we found that the transverse colon was twisted on its axis at about the junction of the hepatic flexure, and was held in a twisted position by a coil of intestine; remainder of transverse colon atrophied and empty; descending colon atrophied and empty. I have attempted to show here the relative positions of the organs.

There was general diffuse redness of the peritoneum and also dark discoloration of the bowels generally, and some amount of serum in the cavity of the peritoneum.

There are several points of interest in this case. The first point is that of operative interference. There is no question in my mind that had this man been in a hospital, and had the history of the injury been known, with this sudden excruciating pain in the abdomen, that a laparotomy would have been performed, in all probability, and this condition found. Whether this condition which was found post-mortem existed primarily, is doubtful. It is probable that paralysis of the gut occurred, due to nervous influences, and this immense distention took place snd transposed these organs. The probability is that the injury was somewhere in the right iliac fossa in the region of the head of the cecum or that portion of the ascending colon which joins the transverse. The first symptoms of pain were to the right and below the navel, and as this condition of meteorism, this tympanitic condition of the abdominal cavity increased, the pain gradually began to be transposed to a line corresponding to a point a little below the navel up to the liver. The line of greatest pain during the last 24 or 48 hours was there, and was probably caused by the immense pressure produced from below upward against the liver and immensely distended cecum. In making the post mortem examination I was as careful as possible in opening the peritoneal cavity, but my knife opened up the peritoneum and struck this point here (indicating), and there welled forth an immense amount of fecal matter, so that I was led to suppose before I had made a freer opening that in all

probability there had been a rupture of some part of the intestinal tract and extravasation of fecal matter into the cavity. You can see by the specimen that there was no evidence of inflammatory action where the twist took place, and the absence of fever would go to indicate that. If peritonitis had been set up at an early stage, due either to the blow or to septic infection, there would have been fever very early in the history of the case. This is a very rare condition. The works on surgery touch it but little. Treves mentions it, but mentions no authoritatively reported case analogous to this, that is, where the cecum is transposed and out of position, as we find it

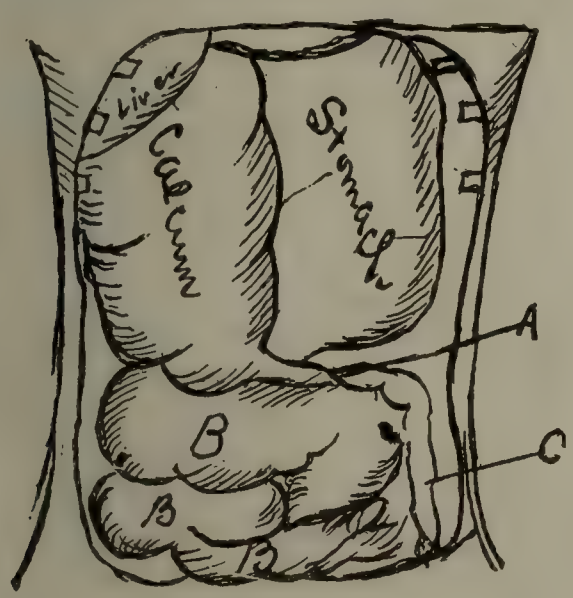

FIG. 1.—DISPLACED CECUM AND STOMACH.
A. Volvulus in colon, and atrophied transversed colon.
B.B.B. Distended small intestine.
C. Atrophied descending colon.

here. I am led to think that there must have been some anomalous condition of the part, probably congenital. We all know that the cecum is very firmly bound down in the peritoneal cavity, it is held down very firmly by the peritoneal coverings, and in cases where there is a great amount of distension of the intestinal tract we find the whole of the intestine distended and in such condition as we find here, so it leads us to presume that there could be but one explanation of it and that is that there was some congenital deformity about the attachment of the cecum which the strain which this young man received in falling over the wheel-barrow of dirt probably dislocated and gave rise to the trouble which we found.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

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SATURDAY, DECEMBER 22, 1888.

THE PATHOLOGY OF CHRONIC ALCOHOLISM.

The wide-spread interest in the effects of chronic alcoholism upon the human economy has recently led in England to the making of extensive statistical researches. The debate before the Pathological Society of London, Dec. 4, on the Morbid Anatomy and Pathology of Chronic Alcoholism may be accepted as another step towards an end much to be desired—the dissemination of clear views regarding the evils that this modern minotaur brings upon those who "indulge in moderation."

This debate, for our knowledge of which we are indebted to the *British Medical Journal*, Dec. 8, was opened by Dr. Payne, the Vice-President of the Society, with an interesting historical review. The history of the subject begins in comparatively modern times. The earliest mention of a pathological condition observed post-mortem arising from alcohol is probably that of the German nobleman of intemperate habits, who died in 1626 and whose liver, noted during life as hard to the touch, was found schirrous, hardened, and juiceless, like rotten wood. Half a century later Walter Harris, the friend and correspondent of Sydenham, recorded the case of a gentleman who drank sack until he fell into an irrecoverable consumption. The liver of this individual was "so thoroughly boiled with constant heat that a sound liver could not well be more boiled over a fire than his was by the use of sack. It was in color and brittleness the very same as a long boiled

liver can be." Other instances are to be found here and there in the literature of that period, but it was not until the eighteenth century that much progress in pathology of hepatic disease was made. In the beginning of that century distilled spirits began to be very cheap. The tavern keepers of the time displayed signboards inviting customers to get drunk for a penny (Taine), and during the gin-riots men, women and children were seen in heaps, dead drunk in the streets.

In 1724 the College of Physicians make public presentation of the evils of the practice. The severer forms of alcoholic disease became frequent—cirrhosis was described by Baillie, alcoholic paralysis by Lettsom and by James Jackson, of Boston, and Magnus Huss published in Swedish his great work *alcoholismus chronicus.* Some of his descriptions of the morbid changes met with in the bodies of drunkards left little to be desired. In recent years the uniformity of the action of alcohol throughout the whole body has become clearly manifest.

The first effect of a tissue poison is seen on the more vulnerable or parenchymatous elements, namely, nerve epithelium, muscle fibre, etc., and alcohol produces degeneration, or ultimately necrosis, of the mucous membrane of Stomach, liver cells, nerve-fibres, nerve-cells, and muscular fibres. Another effect is a chronic inflammation resulting in connective-tissue hyperplasia, fibroid changes or cirrhosis. Alcohol, like phosphorus, has the peculiar power of causing accumulation or infiltration of fat in various parts of the body, especially where such accumulations naturally take place, as in liver, omentum, subcutaneous tissue. This "steatosis" is thought to be due to deficient oxidation or impeded cell respiration, the alcohol or the phosphorus being oxidized in place of the fat which should be burned up in the cell.

Continuing the discussion, Dr. George Harley said that although many intemperate persons lived to a ripe old age, and many moderate drinkers flourished, there was no disguising the fact that the habitual daily indulgence in alcoholic drinks tended notably to weaken the constitutions of most persons, while at the same time it predisposed hereditarily feeble tissues to undergo prematurely both the cellular and the fibroid forms of tissue degeneration. The thickening of the mucous coats of the stomach, the hypertrophies, the indurations, and the fatty, amyloid, and cirrhotic degenerations of the hepatic tissues; the atheromatous changes in the blood vessels, and consequent hemorrhages and apoplexies, the hypertropy of the heart's tissues and the dilatation of its cavities, as well as the granular and fatty degenerations of the kidneys, had long been recognized. These tissue changes, however, form but a small proportion of the morbid effects met with in practice. The class of moderate drinkers are really the most numerous class of alcoholic victims. The liver is the organ which is not only the earliest, but the most generally affected by the daily imbibition of small quantities of alcohol. The death rate in the case of brewers, commercial travelers, and other classes exposed to the temptation of nipping, is six times greater than in that of all the other industries combined. Dr. Harley had great hopes of the results of pathological chemical inquiry into the effects of alcohol. He had himself shown that alcohol, even in the small quantity of 5 per cent, possessed the remarkable power of so altering the materials of the blood, (without affecting the corpuscles) that they entirely lost the power of becoming fitted by oxidation, for the purposes of nutrition. He believed this fact helped to explain how alcohol brought about degenerative changes.

The Examination of the Urine for Glucose.

There is some reason for fearing that the tests for glucose in the urine are not usually made with sufficient regard to their fallacies. The importance of an accurate knowledge of the errors that attend the performance of the ordinary tests can not be overestimated, and will make acceptable to many even an incom-

plete account of the present scientific opinion on this question.

The delicacy of Moore's test—brown or black coloration on boiling with caustic soda —is 0.3 per cent; glucose, mucin and some other normal constituents of the urine give the same reaction. Boettcher's test—caustic soda, bismuth subnitrite and heat—is good if albumin be absent. If albumin be present, a black sulphide of bismuth is formed, difficult to distinguish from the black metalic bismuth which falls when the subnitrate is reduced by glucose. The delicacy of this test is 0.4 per cent glusose. Johnson's picric acid test—(a few drops of picric acid, enough caustic soda to make the urine alkaline, and heat) is also unreliable, for the claret-red which appears when glucose is present is also produced by creatinine. Delicacy of test, 0.01 per cent, glucose. There are many fallacies in the methods of Trommer and Fehling; that is to say, there are found in the urine many substances besides glucose which reduce cupric oxide in alkaline solution—uric acid, creatin, creatinine, allantoin, mucin, milk sugar, pyro-catechin, hydrochinen, bile-coloring matter, and glycosuric acid. After the injestion of benzoic acid, salicylic acid, glycerine and chloral, substances appear in the urine which possess the property of reducing alkaline solutions of cupric oxide. Tommer's and Fehling's tests sometimes show the reaction when glucose is not present, and sometimes fail to show the reaction when glucose is present. Fehling's solution easily decomposes, and before using should be diluted with water (1-4) and boiled—a red precipitate of cuprous oxide indicates decomposition.

The fermentation test is an excellent one, too seldom employed. It depends upon the breaking up of glucose into alcohol and carbon dioxide by the action of the yeast ferment. Fill a test tube with the urine and add a few drops of Brewer's yeast or a piece of compressed yeast the size of a pea. Invert the tube over some of the same urine in a dish, and stand it aside for six or eight hours, keeping the temperature between 70° and 100° F. If sugar be present it will undergo fermentation with the evolution of carbon dioxide, which will collect in the upper part of the inverted tube. As yeast itself may give off gas a control experiment may be performed by testing the yeast in the same manner, but employing water in the test tube in the place of urine. Delicacy of the test 0.4 per cent, glucose. The quantity of carbon dioxide evolved from 0.4 per cent of glucose is just sufficient, at ordinary temperature, to saturate the water in which it is contained, and therefore will not appear as gas in the upper part of the tube. If doubt is felt of the accuracy of these tests, particularly the copper reduction tests, interfering substances should be separated by Bruecke's method.

A new test was brought forward by Fischer in 1883. It is performed as follows: Place in a test tube twice as much phenylhydragine hydrochloride as will cover the end of a pen-knife blade, and into the same tube three times as much sodium acetate as will cover the end of a pen-knife blade. Fill the test tube about one-third with water, warm it slightly, and add an equal volume of the urine. Stand the tube containing the mixture fifteen or twenty minutes in boiling-hot water and then in a vessel containing cold water. If the urine contains a considerable quantity of glucose a yellow crystalline precipitate will appear almost immediately. Sometimes the precipitate may appear amorphous macroscopically, and in such a case should be examined microscopically. If the urine contains a small quantity of glucose the liquid in the test-tube should be emptied into a conical glass and examined microscopically for yellow, needle-shaped crystals. The occurrence of rather large yellow plates or brown globules does not indicate the presence of glucose.

Another recent test, of extreme delicacy, is that of Molisch. Dilute the urine with 100 parts of water, and to one or two cc. of the dilute urine add two drops of a 15 or 20 per cent of alpha-naphthol in alcohol. (The liquid may become turbid, owing to the sepa-

ration of some of the alpha-naphthol.) Add a volume of concentrated sulphuric acid equal to the volume of liquid in the test-tube, and if glucose be present, a deep violet color, transitory in nature, will be produced. On diluting the liquid with water, a bluish-violet precipitate will be formed. Delicacy of the test=1 part of glucose in 10,000,000 parts of water. Thymol may be used instead of alpha-naphthol. If glucose be present a deep cinnibar-red color will be produced, quickly changing to ruby-red and then to carmine. On diluting with water the carmine color still remains. With cane sugar, fruit sugar and maltose both these tests give reactions similar to those with glucose. For further information the reader is referred to the excellent notes on chemical lectures (published a few months ago by Dr. John Marshall, of the University of Pennsylvania) which we have followed very closely, sometimes literally, in the preparation of this article.

Fatty Overgrowth of the Heart.

Dr. Forcheimer, of Cincinnati, read a paper on this subject at the last meeting of the Association of American Physicians. It is to be found in the *Am. Jour. of Med. Sci.*, for December, 1888. The author discusses fatty overgrowth of the heart (fatty infiltration), not fatty degeneration.

Whatever causes obesity may cause fatty overgrowth of the heart. Occupation plays a very important role in the production of heart symptoms with obesity; a man who has been active up to thirty-five or forty, and then leads a life of idleness combined with fat-producing conditions, is apt to suffer with fatty heart. This may explain the great preponderance of the affection in males. The abuse of alcohol, or the taking of great quantities of fluid by a fat individual certainly predisposes to fat heart under proper conditions. All causes of heart strain, over-exercise, tobacco, coffee, tea, great or frequent excitement are also predisposing causes.

The disease occurs in two forms, one in which there is excess of fat about the heart in the sulcus, over the ventricles, etc., and a second in which the fat about the heart becomes developed to such an enormous quantity as to invade the myocardium. The line of demarcation between a normal and abnormal deposit cannot be drawn with mathematical accuracy. It seems to be abnormal when it interferes with the functions of the myocardium. The results of the intrusion of fat upon the muscular substance of the heart are atrophy of the muscular fibres and fatty degeneration. The first is the more common; it is due to pressure by fat. It is remarkable how little fatty degeneration is found in these cases. The myocardium is normal in size in some instances, but always less resistant, and usually softened, easily torn, and of a pale brownish color. The substitution of fat for the heart muscle leads to dilatation, best marked where there is most fat; sometimes hypertrophy follows, sometimes there is myocarditis. Rupture of the heart takes place where the process has lasted for a long time, and where it is well developed. Valvular lesions are quite uucommon. The usual effect of dilatation of the heart, venous congestion, is to be observed.

In the first class of cases we must base our diagnosis upon attacks of dyspnea, and enlargement of the heart dulness (not always to be made out) in a fat person. In the second class of cases the clinical picture is more distinctive. A patient who has borne his fat for years with comfort until a comparatively recent time, complains of dyspnea on slight exertion, finds it difficult to get to sleep after having retired, on account of violent and painful palpitation. The pains of angina pectoris, cardiac asthma, short comatose, even true apoplectic attacks, are occasional symptoms. The subjective symptoms vary greatly. Examination shows increased dulness, diffuse, weak impulse, first sound weakened and possibly absent. A low bruit is sometimes heard with the first sound, and is probably due to irregular contraction of the muscular fibres of the heart, or is hemic. An acentuated seeond sound is occasionally present.

The treatment of fat heart is the same as

that of obesity. In the majority of cases the muscles of the heart resume their natural functions and the patient is relieved when the fat is removed. Of the methods of treatment mentioned by the author, only one can be given here. Oertel's method consists in the exercising of the heart, reducing the quantity of fluid in the system, and a diet. Exercise of the heart is accomplished by causing the patient to climb hills of various grades. Thus is obtained strengthening of the myocardium and increase of its function; secondly, an increase of blood to the right side of the heart; thirdly, a flushing of the pulmonary circulation; lastly, increase of blood in the left side of the heart, and in the systemic circulation under normal circumstances. Where the arteries are diseased Oertel's plan cannot be used. The medicinal treatment is the same as that of any other trouble of the myocardium.

Climatic Treatment of Pulmonary Tuberculosis.

Climatology is just beginning to receive in this country the attention it richly merits. There exists in the profession the widest difference of opinion upon the conditions that should govern the sending of phthisical patients to high altitudes, and this unfortunate lack of agreement should prompt physicians to aid in every way the work of the American Climatological Association and similar bodies.

Dr. Knight, of Boston, in the *Med. News* of Nov. 24, gives the results of his considerable personal experience. High altitudes (4000 to 6500 feet above sea level) he believes to be indicated: in subjects presenting the earliest physical signs of tuberculosis of the apex, who have as yet shown little, if any, general disturbance from the disease, and who complain only of morning cough and expectoration; those with more advanced disease, showing some consolidation, but no excavation, nor any serious constitutional disturbanse; hemorrhagic cases without marked febrile reaction, or much physical evidence of disease; convalescents from acute pleurasy or pneumonia, in whom the eruption of tubercle is dreaded; patients in whom the tubercular process has seriously invaded the larynx, provided they can have the benefit of good local treatment.

High altitudes are contra-indicated: for patients over 50 years of age; those of neurotic temperament; in advanced disease, with cavities or severe hectic symptoms (the existence of a small cavity, in a case in which the disease had become quiescent, would not contra-indicate high altitude); patients in an acute condition; cases of so-called fibroid phthisis or interstitial pneumonia in patients over 50, or with dilated heart, or great bronchial irritation, producing harassing cough; those with cardiac dilatation or disease of the large blood-vessels, and in diabetics.

NOTES ON GENITO-URINARY SURGERY.

BY BRANSFORD LEWIS, M. D.

In the "*Lyon Med.*," of Nov. 25th last, P. Diday writes as follows:

"The specialist, chosen to arbitrate between two contending persons, one of whom denies having given, the other who complains of having received, a gonorrhea, on investigation finds the following condition present. The man has gonorrhea; the woman is examined with a negative result, and is therefore declared to be healthy. In the absence of leucorrhea or a history of previous gonorrhea, how is the communication to be account for?

Both contestants may be correct in their assertions. A single gonococcus left in the vagina from a previous intercourse is sufficient for the inoculation of another male during a successive intercourse.

This is not merely an hypothesis; it is given irrefutable confirmation by clinical facts inapplicable in any other way. Three cases are now on record in which males were infected with gonorrhea by coition *ab ore*; they were reported by Clerc, by Horand and by myself. Now, the mouth is never the

seat of gonorrhea. but one of its regions—some cavity of a decayed tooth—could very readily become the temporary receptacle of gonococci deposited a few hours or minutes before the coition in which the infection took place. By analogy, the common mode of disseminating acari, pediculi pubis, etc., would point to its ready probabilities."

However probable the above theory may be, the force of one of strongest points of the argument is annulled by the fact that gonorrhea of the mouth does occur, several cases having been reported at length and clearly established—one of which was cited in the "Review" recently.

* * *

The list of complications and sequlæ of gonorrhea is gradually and rather rapidly, lengthening to startling proportions, as the nature and pathology of the disease are becoming better understood. The discovery of the gonococcus of Neisser has done more than anything else toward rending the veil that obscured a clear appreciation of the conduct of an erratic "gonerrheal rheumatism"—that would so closely simulate rheumatism, and yet would yield to no anti-rheumatic treatment. It has been only a few years since the gonoarheal origin of that painful joint affection was denied, and its existence as a distinct extity from common forms of rheumatism sharkly questioned by many prominent men of the profession.

At the present time the following organs are known to be subject to gonorrheal infection. The glans penis, epididymis, testicle' urethra, prostate, seminal vesicles, bladder' ureters, kidneys; the serous membranes—of joints, pleura, endocardium, pericardium, peritoneum, meninges, spinal cord, umbilicus, liver (hepatitis), lymph glands, nose, mouth, eyes, rectum; female generative organs, external and internal, and gonorrheal erythema is mentioned in Finger's work "Gons der sexualorgarie," 1888.

* * *

M. Fournier has recently resumed his lectures on venereal and skin disease at l'Hopital Saint Louis, taking as the subject for his first lecture "Some difficulties in the diagnosis of syphilitic chancre." He advises the investigator to be very cautious, lest he mistake the induration produced by some irritation of a soft sore for that which characterizes the hard chancre. Gonorrheal lymphangitis sometimes takes on a nodular form, and, when the nodules are situated on the prepuce or at the site of the balano-preputial fold, they become a ready source of error to the unwary, especially when the thickenings are masked by a phimosed prepuce.

In such cases, one must depend solely on a study of the whole clinical picture, and never make a diagnosis of chancre by objective signs alone.

Again, there exist certain analogies between some lesions of scabies and syphilitic chancre. Ecthymatous scabies may simulate it either in the crustaceous form (in which case it simulates the ecthymatous or crustaceous chancre) or in the erasive or ulcerative form, when it resembles the ordinary chancre.

To escape the error to which one is liable under such circumstances, there is but one plan, the expectant.—*Le Progres Med.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday, Dec. 8, 1888. The President, Young H. Bond, M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. Meisenbach presented specimen from a case of obstruction of the bowel (vide page 673).

Dr. Bond.—This is a very interesting specimen, and it occurs to me that the especially interesting point is whether the displacement of the bowel occasioned the twisting or the twisting caused the displacement of the bowel. I hope that question will be discussed as well as the time at which the stercoraceous matter was vomited.

Dr. Guhman.—I would ask the doctor if there was any rupture of the tissues at the place where the twist existed?

Dr. Meisenbach.—No sir, at the time of the post-mortem we could not find a lesion in any part.

Dr. Lemen.—Did you have any reason to believe there was a rupture of any of the parts holding the cecum in position?

Dr. Meisenbach.—There was nothing to indicate it, the surfaces were perfectly smooth.

Dr. Alleyne.—I would like to ask the doctor what would have been the proper time to operate in this case?

Dr. Meisenbach.—When the pain was not allayed by the opiates and symptoms continued, then was the time to operate, the sooner the better.

Dr. Alleyne.—What would you have done?

Dr. Meisenbach.—I would have performed laparotomy and examined the bowels, that would have been the proper course.

Dr. Alleyne.—The question arises whether after opening the abdomen, the parts would not have been displaced and out of their proper position.

Dr. Meisenbach.—I am inclined to think, judging by the post-mortem appearance and the history of the case that the bowel could have been disentangled at the early period of the attack, and the patient's life probably saved, I think this result might have been accomplished. At the time I first saw him on Tuesday night, even if the family had consented to the operation, I doubt whether his life could have been saved, because at the time there was an immense distention of the abdomen and transposition of the parts which together with the shock already produced, and the shock occasioned by the operation would in all probability have resulted in the death of the patient. Then, too, I am inclined to think it would have been a difficult matter to unravel the condition as it existed. It was very difficult to do it at the post-mortem. But I firmly believe that there was a time during the first few days in the history of the case when laparotomy would have been the proper thing to do.

Dr. W. H. Dalton.—Did you see any evidence of the meso cecum being bound down?

Dr. Meisenbach.—I did not.

Dr. Dalton.—I think it is rather strange that the cecum should have been so far displaced without tearing the meso cecum. As you know the meso cecum binds the cecum posteriorly down to the peritoneal cavity—the post peritoneum, by a band that runs back as far as three or four inches as a rule, and it strikes me that the meso cecum must have been torn at the time.

Dr. Alleyne has asked the question what we should do in such a case. In this case of course, if the abdomen had been opened, the twist in the transverse colon could have been observed and remedied if possible by cutting the band and untwisting it, although occasionally it had been found that the operator was not able to reduce it. Instances have been given where volvolus could not be reduced at all, and in that case an artificial anus has been established at a point above the obstruction. This case, of course, might have been operated upon at any time before fecal vomiting occurred with some prospect of recovery. Of course the earlier the operation is performed the better the chance of recovery of the patient is. It is the long delays which give rise to peritonitis and agglutination everywhere which renders the case more difficult, septic matter gets into the peritoneum setting up septic peritonitis and causing adhesions everywhere. This is what leads to the difficulty in the operation, and gives the patient very little chance to recover. The point in these cases is to first try for a short while to relieve the obstruction, see if the bowels will move by the use of enemas. Purgatives in these cases are dangerous and should not be resorted to, especially drastic purgatives, the idea is in a few hours to try to get an action of the bowels by mild means, by injections, etc., and if the pain remains and the obstruction is not overcome in a short while, and you have meteorism coming on with tenderness on pressure and other evidences of acute peritonitis, I believe the operation should be performed—an explora-

tory laparotomy. I think the patient has a better chance to recover under such circumstances than if it is left until there are adhesions and septic peritonitis, when the pulse is rapid and septicemia has gained headway. The operation is done entirely too late as a rule.

Dr. Meisenbach.—I do not know that I have anything to add except in regard to volvolus. Volvolus most readily occurs in the small intestine and transverse and descending colon, and we can readily understand why. It is on account of the length of the mesenteric attachments, where twisting and turning upon the axis of the bowel can readily take place through strains or injuries, or through obstructions of various kinds. I believe that Treves has reported a case of dislocation of the cecum quite lately. I have seen a notice in the literature upon the subject, but have not been able to get the article. I do not know the character of the dislocation of the cecum. One form of dislocation of the cecum has been described which occurs very readily, that is a hernia through Winslow,s foramen, and, I believe, although I do not know positively that the case of Treves lately reported in one of the London journals is of this character. I think there can be no doubt as to the proper course for the physician to pursue in these cases. I believe it is generally accepted that the only hope for the patient in obstruction of the bowel, where it persists, is in an early operation.

The text-books tell us all about the positive symptoms of obstruction. I want to state that a great many of the positive symptoms are mythical, there is no positive symptom of obstruction of the bowel, there is no symptom that you can lay down as a rule alone and say this is a symptom,unequivocally, which indicates that there is obstruction in this or that portion of the bowel. I think this matter has been very fully treated of by Sir William McCormack in a paper on Intestinal Surgery which has been translated pretty freely, and he calls especially attention to the fact that a great many of the symptoms laid down in the text-books as being unequivocal symptoms of obstruction can not be taken as such alone. Of course, if we put a number of symptoms together we may have a clear picture of obstruction of the bowels, but we do not always get it, we do not often have all the symptoms in a given case. This was one case in which we did not get them, there were no positive symptoms leading to a positive diagnosis of obstruction of the bowels. Of course there was an inability to pass feces, inability to produce stools by enemata, and continuous pain, but there was an absence of stercoraceous vomiting until very late, there was no abdominal tumor, so it is very easy to see that we know a great deal more after a post mortem in regard to cases of obstruction than we know before.

Dr. A. B. Shaw read a paper on "Some Facts and Postulates Relating to Electro-Therapeutics of Diseases of the Nervous System."

Dr. Bond.—These observations are very important, if true, and as the doctor has not indulged in any evidence, I hope the question will be discussed and that he will have an opportunity later to give us some proofs for his statements.

Dr. F. R. Fry.—Dr. Shaw's conclusions, if true, are truly important, but I think of more immediate importance from a physiological standpoint than from a therapeutic one. Many who have worked with electricity about the head have certainly observed the fact that in neuralgia, for instance, and in epilepsy, in cephalalgia which is not neuralgic, that relief from the pain has been obtained, no matter what the direction of the current. I am sure that has been my experience, and I have seen for many years conflicting statements on these very points. I think that we have not reached a point where we can determine from a physiological standpoint what the effect of the current is passed through the cranium and brain of the living subject. I do not think there is any trouble in demonstrating by applying the electrode of a suitable kind to one's forehead, certain phenomena that follow with absolute con-

stancy, but I do not think even now we are certain that we make a proper interpretation of these phenomena. I believe there are facts existing, and those that will be deduced, which will change the present theory of electrotonas. I believe this, not from my own experience, but from the statements of those who have done the most careful work in electro-physiology. I have frequently observed the beneficial effects of the current in the head, for instance, in epilepsy. I have seen cases of epilepsy yield just as certainly, for a while, to the current passed through the brain as to the bromides. I believe that in the great majority of cases, at any rate, it is transient in its effects, quite as much so as the bromides. I am sure I have seen the effect obtained where the current was passed indiscriminately part of the time one way, part of the time the other. I have observed the same thing in treating severe neuralgia of the fifth nerve. I think, especially in treating neuralgic pains, that we are apt to attribute our results to the effect of the current on the nerve, or its effects in traversing the trunk of a nerve, rather than to the local counter irritating effect. I have noticed in treating sciatics that I have got results proportionate with the amount of blistering that I made with the electrodes on the surface. I use a strong current with a small electrode over the painful point, and the large indifferent electrode somewhere else. I think most of the results that we obtain by electricity are obtained in an empirical way, like most other therapeutic effects. I have received the most beneficial instructions in the use of electricity from works that described the modus operandi of applying it, rather than from those which led me to attempt the use of currents in conformity with certain physiological principles.

Dr. Moore.—I am not a worker in electro-therapeutics, but it has been brought so prominently before the profession during the last few years that I came down to-night to get some practical points. Now two gentlemen only have spoken on the subject, and they are just as opposite as the two poles of a battery. Dr. Fry, if I understand him aright, believed that it is largely empirical, and that you may put your electrode anywhere, and the results will be just the same.

Dr. Fry.—No; I did not say that.

Dr. Mooae.—Well, that you can put either electrode at either end. And if I remember correctly, Dr. Shaw takes exactly the opposite view. Now I do not wish to be in the least critical, but I would just like to ask what Dr. Fry alludes to as facts which have recently been established; I desire to know what they are and who established them. Dr. Shaw has made some deductions, and if all the statements which he has made are true, I agree that they are very important, but are they true? Dr. Fry makes the statement that some authorities differ entirely. If so, who are the authorities? What is an authority? If we take up a work on therapeutics, and we find a statement which is just the opposite of that contained in some other work on therapeutics in regard to the same drug, one or the other must be false. I ask these gentlemen for information. Are there any therapeutic effects demonstrated and demonstrable by others who are not versed in the technique of electro therapeutics, who are not adepts and experienced in its use? Are there any therapeutic results that will warrant a man in getting a battery and using it? What are the diseases for which we can use the battery and expect to get better results than can be obtained without it. At the present time I have in mind a patient with lumbago in which case I have tried everything but electricity; shall I try that?

Dr. Shaw.—Try the battery.

Dr. Moore.—I am satisfied my remarks will bring out some practical results. Flint against flint makes the fire fly. I ask these questions in all humility, for the purpose of gaining information, and I would like to be informed what battery I should use.

Dr. F. R. Fry.—In regard to Dr. Moore's first question, I said in making the statement as to certain facts that will probably change to a great extent what have been our notions of electrotonus, that they are facts, not of my

own observation, but observed and collected by others. It has been a very difficult matter, for instance, to determine how much of these phenomena are due to electrolytic processes and how much to other processes, one of the most important facts to be determined in this matter. In passing the current through living tissues what are the effects on the nerve or on the muscles? Are they mechanical or electrolytic, and is the electrical effect distinct from either of the others, etc.? There are observations which go a good way to prove that more of these effects on the nerve are electrolytic than we have supposed, and if that can be proved it will change what has been the prevalent notion about electrotonus. So far as the use of electricity is concerned, I undertake to say that only one who has worked with it a good deal, and who has done individual practical work, is going to do much good; he can not get much information from books, nor from descriptions unless with this he does practical work; he can not obtain sufficient data from any one man's method to start out in the use of a battery. I employ electricity a good deal, but I do not employ it with the expectation of obtaining remarkable results that some doctors do. Not unfrequently physicians come to me and borrow my batteries. If I ask what sort of a case they wish to use it on they probably say, for instance, on a case of recovering hemiplegia, and they expect to use it three or four times and produce a result. I think to the most of those present it is unnecessary to say that they will not obtain any remarkable result from the use of the battery during three or four seances. On the other hand, I believe that in a case of that kind, if the battery was used sufficiently long there will be a beneficial result, but nothing remarkable. I can remember being sent for two or three times and requested to bring a battery with me, and when I got to my destination, instead of finding an asphyxiated patient or something of that kind on which to use the battery, I found a case of apoplexy, the physician imagining that something remarkable was going to be accomplished in a case of that kind by the immediate application of electricity. I cite this as an extreme case pointing to the fact that persons not accustomed to using a battery are apt to expect too much from it; they expect something very unusual or remarkable, and when they hear persons who are accustomed to use the battery about the head talk about it, they imagagine that they produce in that way some remarkable therapeutic effect. I have never seen anything so remarkable from the use of the battery, when taking into consideration all the circumstances of a case.

So far as the cases in which the battery should be used are concerned, that is a matter which every one will have to determine for himself. I believe one who has a battery always ready, and who knows something about the use of it, will find benefit from using it often where one who simply purchases a battery for a single instance would be mistaken and not get results that he hoped for. As to the style of battery, that is a matter of taste. Anyone attempting to use electricity with any regularity ought to understand enough about the varieties and the intensity and quantity of current that he wants, to know the kind of battery which would suit him best when he saw it.

Dr. Moore.—What would you record from your knowledge?

Dr. Fry.—I have a large constant battery at home which consists of 56 cells that I built myself. I use that in office practice. It is the most economical and easy to keep in order of any apparatus I can use. On the other hand, for a portable battery I use some convenient pattern.

Dr. Shaw.—I sincerely hoped much more of a discussion would have been elicited by the statements I made here to-night, not as excathedra, but as deductions from what we know of the effect of electricity in physiological changes under irritation. I do not know that I have anything in particular to add to what I have said, save possibly a few statements in answer to Dr. Moore's questions, which I think would be in place. He asks for any definite results that have been

obtained by the use of electricity. About two years ago I saw quite an elderly lady who was run down by a specific trouble of years' duration. I was using, I presume, proper treatment and tonics, I also used electricity as we are directed to use it to the ciliary spinal center as a tonic. This patient had an enormous goitre, and while using the electricity I observed that the goitre was disappearing. She continued the treatment for a period of about six weeks, when she left the city. On her return, the goitre was much larger than it was when I stopped treating her. I was not administering the electricity to the goitre until she called my attention to the change in her neck herself, when I began from that time to use electricity for the goitre, the negative pole over the enlarged gland. It diminished rapidly under an application of about ten minutes every second day. I don't remember how long the treatment was continued, but the tumor diminished very much. Then the treatment was discontinued for a time and six months afterwards the patient returned and wished me to do something for the goitre.

Dr. Bond.—Did you use the continuous current?

Dr. Shaw.—Yes, sir. Again on the application of the current in the same manner as before the goitre was reached, although I could not remove it. Since that time I have treated three other cases with very considerable success; not a complete removal of the goitre, but a very considerable diminution of the amount of disfigurement. I can say positively that the electrical current relieves neuralgic pains—the descending galvanic current.

Dr. Mudd.—Does it relieve the trouble uniformly in all cases?

Dr. Shaw.—I can not say that, no, sir; but I have seen benefit from it in enough cases to determine me as to the advisability of using it in every case with a hope, and I think a legitimate one, of success. At present there is a patient in St. Luke's Hospital who has had an arthritic trouble, probably of ten years' standing. What treatment he had received prior to entering the hospital I do not know. It was the 22nd of last month that the surgeon in charge of this patient suggested that electricity be used to see if some reduction could not be effected in the amount of swelling about the joint by the removal of plastic matter. He called upon me and asked my opinion. I gave him a very unsatisfactory answer. I said I believed it was worth a trial. Daily applications of the continuous current, five milliamperes for about twenty minutes each day, with the negative pole to the tumefaction, caused a remarkable reduction. There has been a remarkable absorption of plastic matter apparently; the parts are soft and plastic, and there is not that edema present that there was prior to the use of the electricity. Is it *post hoc* or *propter hoc*? The electricity was applied in that case based upon the deductions that I have stated here. Whether these deductions be correct or not I will not pretend to say. I have frequently heard physicians say that it made no difference which pole is applied, for instance, to a painful part; sometimes the positive pole relieves the suffering, and sometimes the negative. I grant that I believe this is true. There are no statements in our works on electricity, generally speaking, that will lead a man to know just what he should do in a given case. If there be any truth in this doctrine of electronis, and the part be congested, and the pain is due to congested, and you use the negative pole there, and your positive pole elsewhere, and contain a descending current along the nerve supplying the part there should be a reduction in the amount of blood in the part, and if the pain be due to an hyperemic state, there should be relief of the pain; if the pain be due to an anemic state of the part, the pole should be reversed. Now, empiricism has taught us that certain results are obtained by electricity, but I think we have arrived at a point where we should begin to investigate and determine, if possible, why we have obtained certain results empirically. There is a reason for it; there is no hap-hazard business about it; at least, that is my way of thinking,

and I believe if we pay attention to what we are doing and make careful observation that we will be enabled after a time to understand what are the effects of electricity. That there is a current of some sort passing I do not exactly believe. I think it is simply a condition induced, a state that is induced—that there is a rebound after every electrical application I do not believe either. For instance I have heard the statement made by good authorities that if you induce in a part a condition of an electrotonus, when you remove your electrode there will be a rebounding and then a reflex condition of catalectrotonis is induced. If we scratch the surface of the body we produce an irritation there, and we have as a result vaso motor dilation. Granted that the positive is an irritant—both poles are to a certain extent irritants, the positive pole much more so than the negative—therefore if the surgeon makes use of electrolysis and introduced the needle into a part and connects with it the positive pole, the application of the current causes a great amount of suffering. This is because the positive pole is the irritating pole. If we scratch a part there will be redness because of the dilatation of the arterioles, and it is presumed that there is a vaso motor paralysis of the part. Now, if we use electricity, after removing the electrode the redness does not disappear immediately after this anelectrotonic condition of the part. According to some authorities there will be a rebound movement and a condition of catalectotonis where there was anelectotonis at first. This is not borne out by the facts. If I induce such a chronic congestion in my liver by the continued use of alkahol, I may bring about interstitial changes there, as we all know, resulting in destruction of my liver, because of those changes, so far as its functions are concerned, and is it not logical and reasonable to suppose that by a continued development of a vaso motor disturbance amounting to vaso motor paralysis in a part, I may increase the nutrition of the part. I certainly can. I say it is logical to make such a statement at least. Now I am not here to night to say that the statements made in this paper are absolute facts, but I am here in this position, I do think some of them are facts, others being deductions from those facts.

Dr. A. J. Steele.—I have from the early days of my practice employed electricity more or less as a therapeutic agent, and I believe in many cases have obtained excellent results from faradization and from the continuous and interrupted galvanic currents. In the special department in which I work, in deformities resulting from paralysis etc., electricity plays quite an important part in stimulating the muscles. Of course, if there is a positive, definite degeneration of cells of the cerebro-spinal system from which the nerves come off to a part, the muscles supplied by those nerves are forever lost, irre trievably, but if the nerves be still intact and the muscles have not fatty degenerated, if true muscular fibers remain, they may be stimulated and increased by electricity, much also may be done in this direction by the employment of massage, passive movements,etc. But electricity is a valuable adjuvant, it has its place. I did not, however, rise to relate my own experience but to call upon Dr. Keating Bauduy who is present to give us the result of his observations on this subject.

Dr. Keating Bauduy.—I did not have the pleasure of hearing Dr. Shaw's paper, and I am rather at a disadvantage in taking part in the discussion. I agree with Dr. Fry when he states that we expect too much of electricity, too marked results. Electricity some time since was in fashion, since then it has lost much of its prestige, I believe, and has to a considerable extent come into disrepute. The question is why has that been brought about? From my limited experience I am inclined to think it is because the operators did not understand the batteries employed. Too many physicians have but one battery. Then after determining upon the battery to be used, the question what current, and how and when to use the current. We must remember that we can obtain a stimulating, irritating, electrolytic, a sedative or tonic effect according to the use we make of the current.

A great many nervous specialists will apply electricity to a case because a patient is nervous, the first step is to find out the cause of the nervousness, and whether there is an indication for the use of the electrical cur rent, if so, whether it should be an electrolytic' a stimulating or a tonic effect.

Very little has been said of the diagnostic value of electricity. I would like to make a few remarks in that direction. A case came under my care about ten days ago, a case of facial paralysis. The attending physician told the patient that it was a hopeless case of central origin. It did not seem to me that the case was so hopeless. I tried a Faradic current and there was no response. Now, of course, physiologically we should have had a response. In that case I gave a favorable prognosis, for the reason that my experience has been that where we have a paralysis of a central character there will be a response to the Faradic current. I am speaking of facial paralysis in contra distinction to peripheral paralysis where we will have no response to the Faradic current; I did not continue the faradization, I have had one or two in which I employ galvanism. I am applying the positive pole to the origin of the facial nerve near the mastoid process, and the negative pole to the muscles of the face. The eye would not close, but by sliding up a sponge under the eyelid I could produce a closure. The case has only been under treatment about ten days, and the woman can close the eye voluntarily, and she is greatly improved, and I do not hesitate to say that in time she will be well. Electricity if frequently employed at the wrong time, as in hemiplegic condition. I think injury is done by applying the current prematurely. Then later on where electricity has no curative effects we can keep up the tonicity, the nutrition of the muscles by applying the current. The rule I generally follow, and the one generally adopted is to apply that current to which the muscles contract. There is only one other diagnostic point to which I will call your attention, and that is the application of central galvanism. In applying the negative pole over the abdomen or pit of the stomach, and the positive pole to the head, physiologically the patient should see a flash, particularly when the current is interrupted. Now when this pole is applied to a distant part, say when it is run down the spine, the patient will see flashes, under some diseased conditions. I believe it is aceepted that this is indicative of some special irritation or some pathological condition sclerotic. In locomotor ataxia frequently the patient will see flashes with one sponge over the pit of the stomach, and the other near the base of the spine. Then again in acute and chronic diseases we find that with the Faradic current there is increased to one where as in chronic troubles, take chronic liver trouble, chronic hepatitis, and the patient will hardly perceive any pain. The matter is one which can not be dwelt upon in so short a time, but it is one which I believe does not receive sufficient attention.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting Nov. 28, 1888.

The President, J. Solis-Cohen, M.D., in the chair.

Dr. Wm. Hunt read a paper on

Diabetic Gangreene.

There are but two monographs catalogued, one by Giron, Paris, 1881, and one by Peyrot, a student, 1878, who reports, I think, 39 cases. Then 10 isolated cases are reported in the French journals from 1856 to 1868. I will give a brief summary of these cases, most of the reporters of which think they have hold of something very rare and interesting, and you will not wonder at this when you hear more of this literature.

1. A case of phlegmon and gangrene of the anterior and external region of the right knee. Free incisions were made. The patient was discovered to have intermittent diabetes. There was recovery from local lesion.

2. A patient known to be diabetic had his right toe to slough; it was detached with

scissors. From this he recovered slowly. He was placed on strict antidiabetic treatment, but was careless and the whole foot became gangrenous. There was great abdominal pain, and necrosis of the gastric mucous membrane was diagnosed; death speedidly followed; no autopsy.

3. A diabetic, æt. 60 years, died from extensive gangrene of the thigh and back.

4. A doctor, æt. 65 years, fell down from an attack of cerebral congestion; never sick before. Diabetes was discovered. This was on the 21st of the month; on the 25th great mortification took place, involving the cellular tissue deeply, followed by death.

5. A man had a leg amputated for what was thought to be senile gangrene. He recovered slowly from this, then the other leg was attacked, first at the toes. He was found to be a diabetic.

6. Another diabetic is mentioned with spontaneous spacelus of the right toe.

7. A colonel with his right foot gangrenous died of diabetes. Other cases are here and there mentioned with spots of gangrene.

8. A man æt. 70 years, after great pain, had gangrene, first in left toes, then in right. The disease was thought to be senile, but he was found to be a diabetic. The absence of ammoniacal changes is noted in this case, and the question is raised whether the urine of diabetes undogoes these changes.

9. A case of complete destruction of the plantar aponeurosis by gangrene in a diabetic is reported with recovery from that lesion.

10. A man, æt. 55 years, cut his corn—gangrene followed and diabetes was present; he died. He had before this no symptoms of diabetes—in fact, was never sick. He went through troublesome family affairs, which he felt deeply, some time before.

These patients where the sex is given were males. Mental troubles are more than once given as a cause. Intermittence in the appearance of sugar is noted in two cases. In fact, in one of them, the interne tells his chief, that he (the chief) had made a mistake. The interne had examined the urine when sugar was absent, but it returned in full. The majority of these cases were in the better walks of life. But the work worthy of a higher dignity of title than a monograph is by Marchal de Calvi, Paris, 1864: "Recherches sur les Accidents Diabetiques et Essai d'une Theorie General du Diabete." Some of his cases are among those quoted above.

Marchal claims to be, and with some force, an original discoverer. He places 1852 as the dividing line between the periods when, in the first, gangrene occurring during the progress of diabetes was regarded by all as a simple coincidence, and the second, when gangrene occurring among diabetics it is the result of inflammatory conditions dependent on the disease and due the irritation of the peculiar products of it, which are thrown into the blood and tissues. This last is the so-called discovery as I understand it, and there is some discussion as to the priority; for Hodgkin, of London, about the same time, as we shall see, took the same view. Marchal was, of course; criticised by his own people, one of whom was Charcot. The cases, facts, and comments are divided into two series, those published before the discovery, and those published after it. The collection is really remarkable, both as to number and as to character of cases, and especially so when contrasted with German, English and American reports and literature on the subject up to that time. Marchal's book has reports of 133 cases of all sorts of what I may call extra lesions occurring during the progress of diabetes, collected both before and after the discovery. In the notice of 3 cases of Carmicheal, Adams and Marsh in the series before the discovery, these remarks occur: "The mention of these cases does not give place to any general deduction. The question to know is whether there exists a necessary relation between gangrene and diabetes, a question which appears to have been totally lost from view." Of the 133 cases, gangrene per se occurred in 57. The seats of it were: in the lower extremities 35, lungs 7, hand 3, pleura 2, shoulder 1. Nucha (not ordinary carbuncle) 2, nose 1 (necrosis). Plantar aponeurosis 2, ribs necrosis 1, forearm 1, back 1,

gangrenous plaques 1—although the latter are reported in several other cases. I shall not pretend to particularize these cases, I refer any one interested to Marchal's book. My purpose is to show that gangrene in diabetes is something more than a coincidence. The extraordinary case, No. 39, almost of itself sustains the position. A man æt. 58 years came under observation. The case is given in detail, and is thus summed up by Marchal: "Thus in the space of six years, from 1850 to 1856, the patient was attacked successively with first, a neucrosis of the first phalanx of the second toe, which was amputated; second, with a sphacelus of the whole foot and inferior part of the leg of the same limb, which was also amputated; third, with a skin gangrene of the other leg which gave place to a callous ulcer; fourth, with a gangrenous inflammation of the base of the great toe, which left a deep and intractable ulcer; fifth, with a sphacelus of the first four toes, which were also amputated." Through all this melancholy history, no suspicion of diabetes was raised until attention having been called to the case through Marchal's labors, the urine was examined and the man was found to be a positive diabetic, and he was proved to have been one for years. Other multiple cases are reported. This by no means exhaust the French literature.

The Marbourg professor (Roser) grasps the situation thoroughly. He says: "When an otherwise healthy appearing man has a gangrenous or ulcerous disturbance, for example, on the foot or hand, when one can think of no infecting cause, when all irrigations with carbolic acid, etc., are in vain, it is high time to think of diabetes."

He attributes the past failures of diagnosis and consequently of proper treatment to three causes: First, to the fixed, classic, and preconceived notions as to diabetes, viz., that an otherwise well-looking and well-nourished person cannot have it; that the usual symptoms, thirst, emaciation, etc., must be present; so to say, a cachexia. (These points I can practically confirm as well taken).

And what are we to this think of this?

Second. In gangrenous destructive processes now, one takes it for granted that a rotting, generating, chink-fungus (literal, Spaltpilz) has got in from without and is the cause of all the trouble, and one is obstinately striving to stop or make impossible the vegetation of this chink-fungus and to control the advancing sepsis by still more obstinate applications of carbolic acid (he quotes carbolic acid as the type of the germicides), and so long as one remains in this blind thought, he naturally seeks for no other etiology.

Third. Even when the diabetes is discovered, the doubt is set up whether it has anything to do with the gangrenous destruction, and then it is still more strongly doubted whether a treatment appropriate to the case, both constitutional and local, can mend matters where there is a high grade of diabetes." Cases are then given,some of which are taken from Marchal. A plausible explanation of some cases of otherwise unaccountable sloughing after operations is suggested in the possible presence of diabetes. I came across some such cases. Roser supports Marchal's axiom, "One must always think of diabetes and examine the urine, when one has to deal with obstinate and repeated cases of furuncle, anthrax, diffuse phlegmon, gangrene or sphacelus, and the like affections."

Since Roser's paper the Germans have paid more attention to the subject.

In the *Centralblatt f. Chirurgie* Koenig "points out" what this article shows has been long ago known, that diabetic patients are subject to a low grade of inflammation; and he issues the dictum, "that in all cases of spontaneous gangrene the urine should be examined for sugar, and in surgical complications of diabetes the first and most persistent treatment should be antidiabetic."

English and American literature on diabetic gangrene amounts to almost nothing. After Hodgkin's paper, 1852, the affection seems also to have been totally lost from view, and no one appears to have taken any special interest in the subject. Hodgkin is the one with whom the question of priority was raised with Marchal. He reports several

cases, one that of a young man who, after venesection for diabetes, developed an acute pneumonia. He died, and gangrenous softening was found surrounding tubercle. Another case, in an elderly gentleman, with symptoms of the same kind; no post-mortem. Two more with gangrenous feet. Then folfows this important remark: "Reflecting upon the evident tendency of diabetes to impair the vitality of the tissues, I could not but attribute it, not to accident, but to an essential connection between the disease and the function of nutrition."

After this I found no mnnograph on the subject, nor no particular reports of cases in our language.

So much for the surgeons. Dr. Tyson, our acknowledged expert in urinary matters,says: "Gangrene of various parts of the body is another of this class of symptoms; it is sometimes spontaneous, but more frequently is immediately caused by some trifling injury, which under other circumstances would be without results. It has been known to start from a blister. The mode of origin makes it unnecessary to seek any further immediate cause, euch as inflammation, degeneration, obliteration of arteries, etc. Beginning most frequently in those parts of the body most remote from the centre of the circulation, as the toes, its progress and appearances are like those of senile gangrene."

Blau as well as Konig is a firm believer in these inflammatory gangrenous affections being dependent upon specific microbes, as do other incidents of diabetes. The easy passage into gangrene is favored by the less resisting power of the tissues than when in health, and also, it may be, the presence of arterial sclerosis.

The diabetic is at a disadvantage with the sound man, in that there is a greater tendency in him to take up the microbes in his tissues and into their fluids, as these offer a better nourishing nest for the microbes. Compare Konig's with Roser's views. Roser ridicules the chink-fungi as the producers of the gangrene in situ and from without. And, agreeing with this, Konig gives them a nidus within from which to operate.

The reason that a sick man is at a disadvantage as compared with the well man is that, the former is a harbor for the products of disease (molecular necrosis). These products are the food of the bacilli, and where the food is there they go. They do not differ in this from all other organized creatures from man to microbe. How far they are the causes of disease is the business of the mycologist to find out. But little as yet has been established as a certainty, and, therefore, it is all the more incumbent, in practice, to guard against their possible presence and specific power. Konig things that capitalamputations had better be let alone so long as the urine is rich in sugar. He also says there are cases in which the surgeon must be the judge. It may be worse to refrain from amputation, and thus let the patient contend with two serious conditions, the disease and the gangrene.

Thus you see that up to this time but little has been added to our real knowledge of diabetic gangrene since 1852, the days of Marchal and Hodgkin. The disease was there, the theories were there, the cautions and advice and treatment. All were present but the bacillus, and he was lurking in the dark. The surprising thing is that, as in the expression already quoted, the interesting and important subject should have twice "been totally lost from view."

Konig reports two most interesting cases, one aged 70, and one 40, occurring in 1886, both having diabetic gangrene and atheromatous arteries. He ampatated a thigh in each case, under strict antisepsis. Both recovered rapidly, and there was a remarkable diminution of the sugar in both, and at times it wholly disappeared. He argues to himself in this quaint way: "During the past year I took the knife in hand, for I said to myself, 'if thou continuest to treat the case in this way (the expectant), the old man, upon whom his family depends, will surely go to the ground; to be sure, he may also go to the ground after the amputation, but possibly he may live if antisepsis is strictly carried out.' " And live he did. He then issues his dictum,a

process of which our friends abroad seem to be veay fond: "When in diabetic gangrene, in spite of antidiabteic treatment constitution-ally and antiseptic treatment locally, the general diabetic symptoms and the local phlegmonous appearances do not disappear or ameliorate, and a further perseverance in the treatment simply increases the danger for the patient, than a radical operation, in order to try to save the patient's life, must be performed. These operations will, as a rule, be amputations."

We will now leave the history and literature of diabetic gangrene and take up the records of experience with a few practitioners here at home.

I think any fair-minded person would say that, if we can develop so much in such a limited range of inquiry and in such a short time, and then ask himself what might be found out by further inquiry, not only among ourselves but throughout the country, diabetic gangrene is certainly something more than a mere coincidence of the disease diabetes. I sent out a small number of inquires to physicians and surgeons in our city, selecting those whom I thought would know most about fhe matter, and also made personal inquiries of some. The questions were: 1. How many cases of diabetic gangrene have come under your notice or treatment? 2. What was the social standing of the patients—wealthy, medium, poor, hospital or private—their ages and sex? The next question would appear to be rather a side issue, but it was made, in passing, to ascertain whether what is almost universally stated about diebetes is legendary, or is the result of carefully collated observation; it also bears upon gangrene of the pulmonary organs—it is: 3. How many of all of your diabetics had consumpton, or died with it, and was there anything like gangrene of the lungs?

The ages, where given, were: 1 between 30 and 40; 2 between 40 and 50; 11, 50 and 60; 12, 60 and 70; 10, 70 and 80; 2, 80 and 90. One exceptional case of Morton's, a diabetic aged 19, in whom gangrenous sloughing took place after a needle operation for cataract, is down, and one of S. Solis Cohen's cases was a young female. Of the sexes given, 24 were females and 25 males. Of social standing, where given, 16 were wealthy, 23 medium, 9 poor, and of these 6 were in the hospital. Dr. Brush reports a most interesting case of a female diabetic aged 40 years, a lunatic. She had large ecchymoses on her limbs which became gangrenous; she died. The autopsy revealed a gumma the size of a large pea in the floor of the fourth ventricle. The seats of gangrene, where reported, are: Lower extremities—below the knee 37, thigh and buttock 2; nucha (not ordinary carbuncle) 2, external genitals in female 1, lungs 3, back 1, eyes 1.

Had I allowed myself to include ordinary carbuncles and boils in the gangrenes, to which class they belong, the list would have been greatly increased.

We will uow take up the third question: How many diabetics have consumption or die of it? Is it a legend?

Among all the diabetics noted by the practioners mentioned, in all 144, we find but 11 deaths from phthisis. And yet Dr. Thomas S. K. Morton in an essay on diabetes has somewhere picked up a statement, from an authority whose name he has missed, that 43 per cent. of diabetics are killed by phthisis sooner or later. Roberts, 1885, says that one-half of them die with cough, catarrh, phthisis, and other lung complications, when prolonged to the third year, and Aiken quoting him, evidently in mistake, say to first year. Dr. George B. Wood says, "In the great majority of cases the patients die of phthisis." Drs. Da Costa and Longstreth, whose opinions are entitled to great weight, make general statements in their answers. Dr. Longstreth cautiously stating it is called consumption. From a conversation with Dr. W. Pepper, who gives no return, he adopts the consumption view; and Dr. J. Cheston Morris coincides.

S. Solis Cohen says: "I cannot find accurate statistics as to consumpton. Think at least one-third of the cases that I have seen,

died of pulmonary affections." Griesinger, qouted by Niemeyer, says "one-half of the cases die of phthisis." Watson says, "some think phthisis universal in diabetes, but it is not so." Flint, quoting Ogle, reports 14 cases, with death from scrofulous or tubercular disease in seven of them. Niemeyer says "that pulmonary tuberculosis hastens the fatal issue." What one of latest authority, C. Hilton Fagge (1886) says, in important, "Diabetes is frequent cause of a phthisis" which is peculiarly pneumonic in character. Its relation to ordinary pulmonic disease is still doubtful," and after giving certain facts he says, "hence it supports very strongly the opinion that the pulmonary affection in the disease is not of a tubercular origin." He kept notes of the diabetic deaths in Guy's Hospital and in 20 years out of 40 such deaths, 17 died of phthisis. You will notice how indefinite and general some of the statements above given are, without figures to sustain them. Blau, in his review in the late number of *Schmidt's Jahrbuch*, already quoted as to gangrene under the head of "diseases of the lungs in diabetics," says, in substance, "that the question whether so-called diabetic phthisis is the same as ordinary tubercular disease of the lungs is only to be settled by the proved presence in both of the same bacillus." Authorities, Inmerman, Rutimeyer, von Merkel, and von Leyden, are quoted as having observed absolute differences between the two diseases both from examinations of sputa and also by post-mortem. A case is given in which during life the patient had all the symptoms of tubercular phthisis. Except the bacilli were not found in the sputum, and at the autopsy the appearances were totally different from those found in that disease, and these appearances are noted in the text. The bacillus tuberculosis was nowhere found. A case having almost the same post-mortem appearances as this one is reported by Da Costa, in the *Philadelphia Med. and Surg. Reporter*, vol. i. p. 8, January, 1887. The bacillus, as in the preceding case, was absent.

This record, considering the large number of consumptives in communities like ours would seem to show that the cases in point are consumptives with supervening diabetes, and not diabetics, with supervening consumption. I leave the question for wiser heads to determine. Diabetics die, as my inquiries and experience confirm, with coma, edema of the lungs, and exhaustion.

Gangrenes, as a rule, are generally of the soft or humid kind. This, however, depends much upon the part involved. Where the tissues are succulent, the gangrene will be also of that chtracter; where they are composed mostly of skin, tendon, and bone, they will approach the senile gangrenes in appearance. The remark made by Holmes Coote is also applicable. He, speaking of the terms used in the descriptions of gangrene in general, as dry, moist, etc., says, "when death of a part takes place rapidly, the vessels still contain blood and the usual fluids, and the mortified parts are moist and soft. When on the other hand the death is slower, there is usually a deficiency of the supply of blood; the vessels become empty and the part hardens and withers." There is this distinctive difference between the diabetic and the senile gangrenes according to my observation. The former rarely or never present the clear-cut line of demarcation between the dead and living that is characteristic of the latter. This fact, with a want of the decided dryness and shrivelling of the senile variety, should suggest the diabetic form, bnt in any case the urine should be examined.

It is rash to make assertions. I, however, will say I should not be surprised to find, after thorough investigation, that in numbers, in civil practice, diabetic gangrenes would be found to hold the second place, trumatic gangrenes, including those from frost-bite, burns, and scalds, only exceeding them.

Diabetes seems, in its affinities, to be more nearly allied to gout than to phthisis. One of Dr. Cheston's gangrene patients was a man over six feet high, weighing 250 pounds. He was a waiter in a private family, and surrounded with all the accessories of wealth. I could not establish that excess in the use of

wine or strong drink had much, if anything, to do with the production of diabetes. A diabetic drunkard is rare; I have never seen one. I think, however; that over-feeding plays a much more important part as a proximate cause. Aside from the boulimia that is often an accompaniment of the disease, it will be found that most diabetics are over eaters in habit. I know that most of my patients were, to say the least good feeders, and some of them excessive ones, and one was noted in this way. Well-to-do people, in time of peace and plenty, eat too much. The laboring classes may eat as much in quantity, but they work it off. Excess in food clogs, excess in drink crazes; so the former habit has the advantage in morals, but which kills most is a question.

I shall only glance at the theories of diabetes. Faults of the nervous, vascular, and visceral systems have been, respectively by some, and all together by others, considered to be at the bottom of the trouble. I incline to deranged vaso-motor effect (stasis or paralysis of the vessels, with or without atheroma or arterial selerosis) as most explanatory. What better fact could we wish to sustain this position than the influence of the disease on virility, condition almost absolutely dependent upon normal vaso-motor function? Men with diabetes are most impotent; Marchal says, always so. He gives some strange cases of marital infelicities, such as unfortunate charges of infidelity by wives against their husbands, when really the poor fellows were helpless diabetics. One of these is described as a veritable athlete, and he was an example of the fact that in this disease great and peculiar strength in one direction may for a time coexist with great and peculiar weakness in another.

Scientific experiments are now being conducted in Australia, according to instructions of M. Pasteur, to discover if possible some method by which the superabundance of rabbits in that country may be destroyed. Rabbits inoculated with or fed chicken cholera microbes died in a short time, but the disease was not transmitted to other rabbits that were kept for several days in the same enclosure with the dead rabbits. Experiments with other germs are being made.

SELECTIONS.

THE MORTON LECTURE ON CANCER AND CANCEROUS DISEASES.

BY SIR SPENCER WELLS, BART., F.R.C.S.,
Surgeon to the Queen's Household.

Delivered at the Royal College of Surgeons of England on Thursday, Nov. 29, 1888.

Mr. President and Gentlemen.—Not one of us needs to be reminded of the almost overwhelming importance of this subject. Cancerous diseases are as heartbreaking to the surgeon as they are mysterious and terrible to the public. And additional reasons for urging the importance of their study now may be found in the fact that, notwithstanding the great advance in sanitary science and the prolongation of the average length of human life—in spite of the shortening of the duration and the lowering of the mortality of some diseases, the prevention (almost the stamping out) of others—cancerous diseases, so far from being less prevalent or less fatal, are increasing among us. The increase in the number of deaths from cancer is now and has been for many years past, greater than the proportional increase of population. Doubts have been expressed whether this increase is real or only apparent, and due to more complete and accurate registration of the causes of death.

The forty-seventh annual report of the Registrar-General of births, deaths and marriages in England was presented to Parliament in 1886. It contains returns of the deaths in 1884, and we find that the mortality from cancer was higher in that than in any previous year. We also learn that in three successive periods of ten years from 1851 to to 1880, and in the seven following years, to 1887, there has been a gradual increase of mortality from cancer, an increase common to both sexes, but considerably greater in males than in females. Up to the age of twenty five, the cancer mortality is small in both sexes, but at all age-periods after the twenty-fifth year the mortality is much high-

er of females than of males, and in both sexes there is a rapid rise of cancer mortality at all ages after twenty-five years. I am very unwilling to trouble you with figures, and yet the story they tell of increased and increasing mortality from cancer in England and Wales is so full of interest, that I feel bound to ask you to glance at the tables before you, which I have prepared partly from published reports, and partly from information kindly supplied to me officially.

A glance at the first table shows that up to 1884 the mortality reached 560, and was 606 three years later. These are the returns for all ages. If we omit the earlier years of life, and examine the returns for those who have attained the age of 25 years and upwards, we are able to compare the period of thirty years before 1880 with the seven following years. Here is the comparison:

	Both sexes.	Males.	Females.
Thirty years (1851-80)	867	561	1144
Seven " (1881-87)	1229	895	1533

(Proportionate number of deaths per million inhabitants.)

The only years for which I have yet been able to compare Scotland with Ireland and England are 1883 and 1885, and the figures are:

Year.	England.	Scotland.	Ireland.
1883	546	550	400
1885	546	569	390

In the United States the recent increase of mortality has been as great as in England. According to Dr. Fordyce Barker, whose reputation here is as deservedly high as among his own countrymen, the mortality from cancer in the city of New York has risen from 400 to the million in 1875, to 530 to the million in 1885. Discussing this increased frequency and mortality of cancerous diseases "in those nations which are the most advanced in civilization," Dr. Barker says that in America these diseases are much less frequent in the colored than in the white race. Hence the mortality is less in the Southern than in the Northern States. "It causes the greatest proportion of deaths where there is the greatest proportion of people of advanced age—that is to say, in the New England States. Hence, in any given locality, a large proportion of deaths from cancer indicates, to a certain extent, that the locality is a healthy and long settled one, and has a large proportion of inhabitants of advanced age." In this country it would appear that although the liability to death from cancer advances rapidly with age, as does the liability to death from other causes (in the words of our Registrar-General), "the characteristic feature of cancer mortality is not its increase with advance of years, for this it shares with other fatal affections, but its disproportionate increase in the middle periods of life."

Upon the general question of the nature and causes of these diseases, of their prevention or the means of checking their increase, I can only speak in the most hasty manner.

If I were to attempt to add to this, it would be necessary to review the progress of scientific pathology in our own time, and to criticise what is known or believed, or taught in our schools, of the processes which lead to the formation of new growths, especially of those growths which are in their character infiltrating, spreading, invading, encroaching upon or supplanting surrounding structures, and which may secondarily effect distant parts of the body. The problem is how these growths take the place of normal tissues or structures, how their cellular elements appear in the interstices of normal textures, how the normal cells are altered or transformed, how the infecting cells are only misplaced and proliferating epithelium, not new elements, but imperfect or morbid epithelium which has acquired the power of infecting the neighboring cells, or of impressing upon them an epithelial type. You see in this drawing "cancer-cells" arising interstitially from connective tissue-cells which had reassumed their embryonic plastic character. This is the teaching of Virchow, and though not easy to explain seems to be in accordance with what the microscope shows us. If we go a little further back and study the whole cycle of changes from the cellular rudiments of organs and tissues through their normal growth and development toward their natu-

ral decay or death, and bear in mind the liability of some of them to premature obsolescence, the occasional persistence of or return to embryonic form or powers, and the risk attending the survival in the body of rudimentary structures, we open a fruitful line of inquiry. These are problems which it would be hopeless to attempt to discuss in a single hour. And if we combine the study of this elemental or cellular pathology with that of the changes in the blood and blood-vessels and in the nervous system, modified or not by the influence of hereditary tendencies, and associated or not with the action of chemical or organic agents introduced from without, with the inoculation and multiplication of micro organisms, and with the poisonous animal alkaloids or extractive compounds which they secrete and leave behind after their work has been done, we are only on the threshold of a new world, a boundless sphere for continuous research.

Although the hour is rapinly approaching its end, I must not pass over without remark recent discussions as to the supposed microbic origin of cancerous growths. Cases of acute cancerosis or miliary cancer, analogous to acute tuberculosis or miliary tubercle, have led to the search for a specific microbe or bacillus. Scheurlen believes he has found one, but nearly all who have examined his statements have been led rather to negative than to confirm his conclusions. Senger, indeed, has almost proved that Scheurlen's cancer bacillus is nothing more than a potato bacillus—one which grows readily on slices of potato, and is often accidentally found there. So far as inoculation experiments or grafting of portions of cancerous growths upon sound parts of the body, have hitherto gone, they are certainly against the microbic doctrine. We can only admit that any disease is caused by a microbe when the micro-organism has been isolated, has been cultivated outside the human body, and then, when the cultured organism has been introduced, it has led to an identical form of disease or growth. Unless these three things are done we have no positive proof that a disease is due to specific germs.

Knowing how keenly such questions as these are now discussed, I was anxious to know if the great leader of German pathologists has yet arrived at any definite conclusion regarding them. So I wrote to Professor Virchow, and he replied on October 25th last, sending me a paper published in his *Archives* on the "Diagnosis and Prognosis of Carcinoma," and adding: "Since I wrote that paper last December, the only progress in the knowledge of Scheurlen's bacillus was its detection growing on potato sections without cancerous origin." Professor Virchow also refers me especially to a part of his paper which expresses his present belief that "the most scrutinizing investigations have not yet arrived at a convincing demonstration." But, with equal caution, he adds that the possibility of the existence of such a micro-organism cannot simply be denied; and that the discovery of a specific bacillus would be of the greatest importance in the diagnosis and prognosis of carcinoma—because, he says: "The attempt to explain all the stages of cancer proliferation with dessemination and metastasis by the dispersion of cancer cells is by no means so certainly supported by anatomical or experimental proof as to exclude any other mode of explanation. Nor, on the other hand, is the need for cancer bacillus so great that without it we are deprived of the possibility of understanding the process. Animal or human cells, quite as well as bacteria, have the power of influencing metamorphosis, and of producing effective secreted matters of the most various kinds. Why, then, should such an influence be denied to cancer-cells, which in many, and especially in the worst cases are in such a marked degree endowed with the character of gland-cells?"

I must at once pass on to the consideration of our duty as surgeons in treating sufferers from cancerous diseases, and I propose to ask you to reflect at your leisure upon certain questions about which the mind of the profession is still not definitely settled, rather than accept any conclusions of mine.

The first of these questions is whether a cancerous growth alone, or the whole of the

part or organ which it has invaded, should be removed; and I think the time has come to agree upon some general rule or principle of treatment. With regard to cancer of the breast, two very opposite opinions are held by men of high position as hospital surgeons.

Time prevents me from entering further upon this important practical question than to say that my own practice, and what I have actually seen of the practice of others during the past thirty thirty years, would lead me to remove the entire breast in every case of cancer, except where the growths are small and close to the margin of the gland; or only affect outlying portions of the gland. And when such growths are found, not in the gland but in the axilla, I should strongly oppose removal of the breast, because I think such tumors may be neither of the breast itself nor of the axillary lymphatic glands, but of a certain class of sweat-glands which have been the subject of a paper by Dr. Creighton. I believe it is only necessary to direct more attention to this inquiry to lead to the recognition of a new and large class of tumors of the axillary and pectoral regions.

The tumors to which I allude are found at the outer border of one or both breasts, and the surgeon is doubtful whether the breast itself is or is not involved in the new growth. When the growth is between the outer border of the mammary gland and the corresponding axilla, the fear is felt that the axillary glands are involved in the breast disease; and opinions are given that both the axillary tumors and the breast should be removed.

The general structure of these tumors of the irregularly scattered sweat-glands, including their hemorrhagic capsule, appears to be the same that has been described for the puzzling class of cases known as "alveolar sarcoma of the breast," or "duct-cancer of the breast." It is noteworthy that these cases have sometimes been found to start from the areola around the nipple, a region which is known to be provided with the same kind of tubular glands as are found in the axilla. When such growths ulcerate, they resemble rodent ulcer. The so-called eczema of the nipple which has been observed in such cases would appear to be connected with the orifices of the gland, and, in its simpler forms, to be little more than the brownish secretion of the glands dried upon the skin.

Let me mention another matter for your consideration. We may be consulted in cases where the period for early and hopeful operation has passed by, or where, months or years after operation, recurrence has taken place—it may be that recurring growths have also been removed, once or several times—and then comes a time when a patient exhausted by loss of blood or by profuse offensive discharge, approaches the end, and further operative treatment is abandoned. Are we to be content with relieving pain, prolonging sleep, and the use of deodorizing or disinfecting appliances, or can we do more? Can we encourage the forlorn hope of the patient that even yet the growth may be stopped; that some benign alteration may take place in its structure—something like the "spontaneous involution" of Virchow—some retrograde fatty change in the cells or elementary components of the tumor, while extension or growth of new cancer cells is stopped? If this could be attained before the whole body were infected it would amount to curing cancer. From time to time such cases of cure are reported; but few, if any, stand the test of accurate investigation. Virchow, however, cautions us against too great scepticism in such therapeutical investigations, and says that the hopeless condition of the patient justifies the trial of remedies of whose mode of action we have no clear idea. Whether we can go still further, and secure for healthy tissues immunity against infection from an existing cancer—a resistance to invasion—remains a subject for future inquiry. All we can yet say is, that under certain conditions the nutrition of cancer cells may be so far arrested as to lead to their complete disintegration. This is often observed in small fragments, or within a limited circumference, and Nussbaum has recently succeeded in the attempt to effect such changes in larger growths by cutting off their supply of blood. He

makes deep furrows with Paquelin's cautery through the integuments and subcutaneous fat quite down to the adjacent fascia or muscles, thus cut off all peripheral supply of blood, and so lessens the abnormal vascularity of many malignant tumors. Soft fungoid masses which bleed readily soon become firm, and the whole tumor more solid, while the general health improves and life is prolonged. And we also hear from Munich of aims at a somewhat similar object by injecting solutions of ozone into the substance of cancerous growths and the tissues surrounding them. Not only is the proliferation of the epithelial cells said to be arrested, and the formation of cicatrical tissue obtained, but the surrounding textures are protected against invasion. So long as the disease is local it must be curable. As Virchow says in concluding his last paper. "If cancer in its beginning, and often very long afterward, is a local disease, it must be possible during this period to locally cure it."

When a superficial cancer on a limb has returned after destruction by cautirization or cautics, or after removal by the knife and grafting of healthy skin, and the lymphatic glands nearer the body rêmain free from infection, the propriety of amputating the limb must become the subject for consultation. It will sometimes be the painful duty of the surgeon to urge upon a reluctant patient to sacrifice a limb in the hope of saving life; and if this advice is followed before infection of the glands has taken place, the result has often proved the soundness of the advice; while too great delay, or want of earnestness in urging submission to so serious an alternative as the loss of a limb must always be, may lead to protracted suffering and inevitable death.

I have yet another subject for your consideration; one which the general public enters into with a good deal of warm feeling and an amount of ignorance which calls rather for instruction than blame. I mean the removal of cancerous growths by cautics instead of by the knife. On this point let me read to you what our great master, John Hunter,said just a hundred years ago, (Palmer's edition of his works, vol. i, p. 625) as to cures for cancer.

"No cure has yet been found; for what I call a cure is an alteration of the disposition and the effect of that disposition, and not the destruction of the cancerous parts. But as we have no such medicine, we are often obliged to remove cancerous parts, which extirpation, however, will often cure as well as we could do by changing the disposition and action. Arsenic seems to have some power of this kind,and its effects might be increased, by being used internally and externally; but its use is very dangerous, and I am afraid insufficient for the disease. This is a remedy which enters into the empirical nostrums which are in vogue for curing cancer, and among which Plunkett's holds the highest rank. But this is no new discovery, for Senertus, who lived the Lord knows how long ago,mentions a Roderiguez and Flusius, who obtained considerable fame and fortune by such a composition. I was desired to meet Mr. Plunkett, to decide on the propriety of using his medicine in a particular case. I have no objective to meet anybody. It was the young one; the old one is dead, and might have died himself of a cancer for aught I know I asked what he intended to do with his medicine. He said, 'To cure the patient.' 'Let me know what you mean by that. Do you mean to alter the diseased state of the parts, or do you mean by your medicine to remove the parts diseased?' 'I mean to destroy them,' he replied. 'Well, then, that is nothing more than I or any other surgeon can do with less pain to the patient.' "

I wish to say something more as to the use of cautics rather than the knife, scissors, or cautery, but I have only time to add that potassa fusa has been largely used in this way, and that I have heard of, but never seen, very good results following; and I have seen several cases treated by the late Dr. Wynn Williams with bromine. But not one ended satisfactorily, although temporary good was done. On the table is a very remarkable specimen of the entire uterus, which sloughed away after the use of chloride of zinc. Dr.

Marion Sims carefully scraped away with his curette all the diseased structure till he came upon hard uterine tissue. Then he applied persulphate of iron upon cotton-wool, left this for 24 hours, removed the styptic plug, applied another plug of wool charged with a strong solution of chloride of zinc, and left this four days. After removing this plug, antiseptic vaginal injections were used for several days, and then I found this mass quite loose in the vagina. It consist of the entire uterus, and when fresh it was quite evident that some of the peritoneal coat of the fundus came away with it. The patient suffered a great deal, and died about two months after the application of the caustic; sooner, I believe, than if she had been left alone.

More than ten years ago, in June, 1878, lecturing in this theatre, I gave a short account of Freund's method of entirely removing a cancerous uterus through an incision in the abdominal wall, and referred to Blundell's four cases of removal through the vagina. I then said I thought it would be very rarely that an entire uterus affected by cancer would be removed in this way, and I need now only add that the results of the practice have been so disappointing, that it may be said to be practically abandoned.

I shall not attempt to give the results of this operation statistically, but it is important that we should know what a few of the most experienced operators have been able to accomplish. Leopold wrote to me on the 11th of this month, stating that up to that date he had performed total extirpation of the uterus by the vagina in 83 cases with only 5 deaths, a mortality of 6 per cent. Pean, writing on the 13th, says that from 1882 to the end of 1887 he had done 22 operations, 15 successful, but with 8 deaths; but that this year he has had 16 cases, all successful and no deaths. Professor Olshausen, of Berlin, appears to have the largest experience of this operation, for he writes to me that between May, 1887, and November 5, 1888, he had 99 cases with 13 deaths. In 1881-82, he had 22 cases with 8 deaths; from January 1883, to April, 1887, 31 cases with 5 deaths—53 cases in Halle with 13 deaths to be compared with 99 in Berlin, also 13 deaths. All these were cases of total extirpation by the vagina for cancer. He has had 1 case where seven years have elapsed without recurrence, and 3 of five years and upward. Martin, of Berlin, who had previously published 66 cases where cancer led to the operation, with 11 deaths, or 16 per cent mortality, writes on the 16th of this month: "Since the Washington Congress in 1887, I have performed the vaginal total operation in 22 instances" (he does not say in how many for cancer.) "All recovered but one, who died of hemorrhage. Of supravaginal amputation I performed altogether 6 with one death." It would be easy to collect a very large number of cases, such as Schroeder, 59, with 5 per cent mortality; Fritsch, 60, 7 per cent fatal. But these do not bring us later than 1886, and they all tell the same story of greater success following larger experience.

As to the comparative mortality of infra- and supravaginal amputation and total excision, the results vary so much in successive years and in the practice of different operators, that I have been unable to collect material for a trustworthy contrast either as to the immediate fatality or as to the frequency of recurrence of disease, but it certainly appears that recurrence is earlier after partial than after complete operations. In some series the remarkable fact comes out that supravaginal amputation stands the test of recurrence better than complete excision. This would be inexplicable if it were not for the probability that the disease had been generally much further advanced in the case where total excision was performed than in the others.

Our American brethren have been before us in adopting the operation of total excision of the uterus, and, as elsewhere, their results have improved with time and experience.

The cases hitherto performed in this country have not been enough to serve for any comparison of results with those abroad, but they all teach the lesson that if the operation is to be successful it must be done early, be-

fore surrounding structures are involved in the disease.

There are other parts of this subject on which I should like to say much more. I wished to allude to cancerous disease of the ovary, and to say how difficult it is to decide whether an ovarian tumor is innocent or malignant, even after it has been removed and carefully examined. Now I can do no more than support the rule to operate early as the best way to avoid recurrence. I wished also to remind you how the mortality after amputation of the breast and after removal of other parts affected by cancerous disease has been so much lessened by modern sanitary science that all the old arguments against operating at all in cases of cancer requires revision. I wished to say something about inadequate operations, and about operations which are unnecessarily severe—and much more than I did say against operating in hopeless cases, and in studying how to "soothe where we cannot save." Of cases which especially interest us, where cancer has affected the lips or tongue, the esophagus, the larynx, the pylorus, the spleen or kidneys, the intestines, the bladder and the female genital organs, I have not time to say another word.

In case of need, the entire uterus containing a fetus or a viable child, with considerable tumors and with both ovaries may be successfully removed through the abdominal wall. But excission of the uterus by laparotomy must be an exceptional proceeding, as removal through the vagina is a much more successful operation.

I am sure we are not yet in a position to compare numerically the risks of partial or total excissions either as regards the immediate danger of death from the operation, or as to the liability to recurrence at longer or shorter intervals. This must be done at some future time, when we have a larger number of cases accurately observed and faithfully recorded. At present I can only offer a general statement that in my own practise, when the disease is strictly limited to the parts near the os, I prefer infra-vaginal amputation, and I do it by the galvanic cautery ecraseur, using the wire at a low red heat, and tightening the loop very slowly. I have removed nearly the whole of the cervix in this way without losing one drop of blood. A white, dry eschar is left, and cicatrisation follows without fever or much pain. When disease has extended rather higher, amputation must be done with knife or scissors, but it is well to cauterize the raw or bleeding surfaces by copper or gas cautery, or Paquelin's, to serve the double purpose of checking bleeding and destroying any infective cells that may possibly have invaded the tissues above the line of amputation.

After what I have said it cannot be surprising that in any case where cancerous disease has extended much higher than the os, and there is good reason to believe from the mobility of the organ that the surrounding tissues are still free from invasion, I advise total excission as the best practice; and increasing experience is materially simplifying the operation. I cannot pretend now to describe the different steps in detail, and I need only allude to the importance of preliminary disinfection of the vagina, removal of any dead or softening cauliflower excrescences, and shaving off all hair from pubes and vulva. This may be done the day before operation.

During the operation the patient is fixed in the lithotomy position by anklets and wristbands, or by thigh crutch; and a douche and elastic tube are so arranged that a stream of warm, slightly carbolised water may continually irrigate the vagina. The body is well covered, as well as the arms, legs and feet, to prevent chilling. If the uterus is fairly mobile, no speculum (at most one or two retractors) is required. Some operators draw down the uterus by a simple or double hook, or by hooked forceps; but, if the cervix is firm, any friable part having been cleared away, the safest plan is to pass a strong wire through the cervix. This is quite safe, and not so likely to cut as silk. Supposing that any intention of turning the fundus either forward or backward is, as it ought to be, abandoned, the cervix is pulled by the wire

toward the vulva orifice, the labia held aside, and the sides of the vagina separated if necessary. The operation is completed by different stages.

1. Division and loosening, and pushing up to the extent of half to three quarters of an inch of the vaginal mucous membrane behind and in front of the cervix.

2. Pushing upward or separation of the bladder and ureters from the neck and anterior surface of the anterior surface of the body of the uterus.

3. Opening Douglas' pouch, and introduction of a sponge to keep up the small intestines.

4. Securing the uterine arteries on both sides by ligature or by pressure forceps.

5. Division of the broad ligaments and other attachments, and removal of the uterus.

6. Cleansing vagina, removal of sponges, arranging ligature threads or forceps, and loose plugging with iodoform gauze.

It is unnecessary to such an audience as this to enter into further detail, but I will refer briefly to two matters of great importance—the safety of the bladder and ureters, and the substitution of forcipressure for the ligature.

Sometimes the separation of the bladder from the uterus is quite easy, sometimes very difficult, and I am sure great care is always required to avoid the ureters. In several recorded cases, one; and in more than one case both ureters have been tied or divided.

Pressure-forceps are used by the French instead of ligatures, preferred by the Germans. When a practiced operator has prepared everything before he begins, I feel sure that fifteen or twenty minutes would give ample time to complete the operation if the ovaries are not disturbed. If healthy, I think they had better be left alone, and so may the Fallopian tubes. But if the disease has extenned high up the uterine cavity it would be safer to remove the tubes; and this would add very little to the duration of the operation.—*Brit. Med. Journ.*

Typhoid Fevfr Endemic in Montreal.—There has been an unusual, and almost epidemic, prevalence of typhoid fever in the eastern or French-Canadian quarter of Montreal. Nearly one-fourth of the beds at the Hotel Dieu and other hospitals are now occupied by cases of fever. The Board of Health, having entered upon a thorough investigation of the epidemic, early discovered that the law requiring physicians to report the contagious cases, including typhoid fever, occurring in their practice, was not heeded, by the fraternity of the French quarter. Prosecution of the alleged delinquents was ordered and several were brought into court under arrest. The judge declined to try the cases, however, holding that the health officer had full jurisdiction in the question of the non-reporting of contagious diseases. Under a discreet administration of his powers, by that officer, Dr. Louis Laberge, it is probable that the important duty of a timely notification of diseases tending to become epidemic will be accepted by the physicians of that frequently afflicted city. The interests of the public health call for it, not only, but it is also greatly to the advantage of the medical profession that the onset of those diseases shall be fully known. An amicable understanding between the health authorities and the profession in this matter is a consummation greatly to be desired.—*Med. News.*

Treatment of Dysentery.—Dr. Edward Anderson says (Md. *Med. Jour.*) that dysentery is due to an acrid condition of the contents of the small intestine. His treatment is to "give a pill containing half a grain of opium and two of blue mass every four hours until all the glands that pour their contents into the alimentary canal are stimulated to free action." Washing out the lower bowel by injecting a large quantity of warm water is excellent treatment to precede the administration of cholagogues.

THE WEEKLY MEDICAL REVIEW.

VOL. XVIII. No. 26. ST. LOUIS, DECEMBER 29, 1888. TERMS: $3.50 A YEAR.

ORIGINAL ARTICLES.

A SUCCESSFUL CASE OF LAPAROTOMY FOR INJURY BY A CIRCULAR SAW.

BY JOHN H. PACKARD, M. D.

Read before the Philadelphia County Medical Society, December 12, 1888.

Charles Brown, aged twelve years, was brought to the Pennsylvania Hospital, September 24, 1888, having fallen against a circular saw in rapid motion. The accident occurred about one mile from the hospital.

On his admission, the ascending colon and about two feet of the small intestine were protruding from a wound four inches or more in length, nearly vertical, on the right side of the belly, some two inches from the middle line. The mass was tightly grasped in the wound, so that access of air to the peritoneal cavity was prevented. The boy was in a condition of marked but not excessive collapse.

He was etherized, and the parts antiseptically cleansed. The bowel was then carefully examined. Three wounds of the intestinal wall were detected; one involving the entire thickness, the other two the peritoneal coat only. At several points the omentum had been wounded, and the mesentery was cut in two places. The boy's woolen clothing had been torn by the teeth of the saw, and a great many minute shreds of the stuff deposited on the surface of the protruded mass.

The three intestinal wounds were carefully sutured with very fine silk, after the method of Lembert. All the bleeding points were secured with fine carbolized catgut. Some ragged portions of omentum were similarly tied and cut off. Attention was next given to the cleansing of the peritoneal surface from all the bits of woolen threads deposited on it; a very tedious process, occupying more time than any other part of the operation.

In order to return the protruded mass it was necessary to enlarge the wound somewhat; after which reduction was accomplished without difficulty. After irrigation of the peritoneal cavity, the edges of the wound were brought together with silkworm-gut sutures, secured by shot. A glass drainage tube with a closed and rounded end was inserted, and the usual antiseptic dressings applied, with a flannel over it.

Every two hours the cotton rope filling the tube was removed, and suction was made with a hard-rubber syringe with a lang nozzle, so as to prevent any accumulation of secretions.

Reaction took place very favorably; the boy had only very slight pain by some nausea and vomiting.

The nausea and vomiting continued all next day, subsiding toward evening. A free movement of the bowels occurred, and I learned later that an attendent, just after the boy's admission, had given him by mistake ten grains of blue mass, intended for another patient. As soon as the stomach became quiet, the administration of prepared milk and beef-tea, alternately every two hours, was begun.

On the 28th (the fourth day) there was only a slight yellowish discharge from the tube.

29th. The glass tube was removed, and a soft rubber one substituted for it. Solid food (milk toast) was given.

30th. He ate an egg and some chicken-broth.

A day or two after this the tube was removed, and a few days later the sutures.

For some two weeks after this the boy was

kept in bed; he was allowed first to sit up in bed, and then to get up and walk about.

On October 31st, thirty-seven days after the injury, he walked into the clinic room; and on November 12th, he was discharged, with directions to wear a binder for some time, and to report to us before dispensing with it.

I should have mentioned that, after the spontaneous movement of the bowels on the second day, an enema of turpentine and sweet oil was administered about every third day until his dismissal.

Certain features of this case may be briefly commented upon. The boy's youth was, of course, in his favor. He was stout and healthy,although his surroundings had not been by any means hygienic. But there was one circumstance of special advantage—the fact that the protruded mass quite filled up and plugged the wound in the abdominal wall. Besides this, the wounds were all of small extent, and no large vessels were divided. The presence of the almost innumerable shreds of soiled woolen clothing on the peritoneal surface was of course an element of danger, only to be set aside by the utmost care and patience in their detection and removal.

TUMOR PROBABLY OF UTERINE ORIGIN, ATTACHED TO A SMALL INTESTINE, REMOVED BY LAPAROTOMY.

BY JOHN H. PACKARD, M. D.

Read before the Philadelphia County Medical Society, December 12, 1888.

For the following notes I am indebted to the kindness of Dr. L. I. Blake, resident surgeon to the hospital. It is due to him also that I should acknowledge his skill and attention in dressing and caring for this patient.

Kate M., native of Ireland, aged twenty-six, domestic, single. Admitted to St. Joseph's Hospital November 13, 1888. Family history good. Personal history also good, with the exception of an ill-defined attack she suffered from three years ago, probably resembling in some points the present one, and which was pronounced by her physician at that time to be intestinal inflammation of some sort.

She had been examined by two physicians before admission into the hospital. They first stated that she had inflammation of the womb, while the second led her friends to believe that she was pregnant.

On admission, she stated that she had been suffering for three weeks, getting worse gradually. On examination her abdomen was found to be enormously distended, and exquisitely tender to the touch. Constant pain was felt throughout the greater portion of the trunk. Temperature 101°F.; pulse 100 and moderately strong. There being neither history of traumatism nor marks of violence, a vaginal examination was made, but no abnormalities noted. Her menstruation was established at fifteen, and has always been regular. When pain was sufficiently relieved to permit manipulation of the abdomen, distinct fluctuation was elicited, and in the left ovarian region was an area of dulness, which, though slightly variable, was not obliterated when the patient was turned on the left side. Deep pressure on this spot detected a hard mass which receded from the touch, but returned, the hand being kept in position. Owing to the extreme tension of the abdominal walls it was impossible to ascertain anything as to its nature or attachments.

The tympanities and acites failing to respond to medicinal agents, the patient growing weaker, and at the end of three weeks the respiration being interfered with, an exploratory incision was decided upon.

The patient being in tolerable fair condition, the operation was performed by Dr. Packard on Saturday, December 8th.

The peritoneum was found to be very much thickened and congested, its appearance being scarcely distinguishable from that of intestine.

After removing five or six quarts of clear serum from the peritoneal cavity, the incision was enlarged, revealing a growth attached to a knuckle of intestine in the lower segment of the abdominal cavity to the left of the median line. This tumor, a little larger than a fetal

head, was hard and dense in structure, weighing one and a half pounds; encapsulated and attached by a narrow pedicle, little more than an inch in breadth, which seemed to be a redundant portion of the capsule thrown around almost the entire circumference of the intestine. This was carefully dissected away from the intestine, and all bleeding points ligatured.

The peritoneal cavity was irrigated thoroughly with a solution of the bichloride of mercury, 1 part to 15,000 of distilled water. The peritoneum and abdominal walls were sutured separately, the former with catgut, the latter with silk-worm gut. A glass drainage tube, perforated and closed at the bottom, was placed in Douglas' pouch, and the wound closed and dressed.

The operation was done under full antiseptic precautions. The patient showed considerable shock after the operation, from which she rallied slowly. It was accompanied by persistent vomiting, which was relieved by one drop of creasote every two hours, administered in syrup of vanilla. A pecular temperature was exhibited during this period, the same thermometer registering successively in the mouth $96^3/_5°$, in the axilla $97^4/_5°$, in the rectum 101°. During the first twenty-four hours there was not sufficient discomfort or restlessness to call for anodynes. Up to this time, about six ounces of bloody serum had been drained from the cavity. Four ounces of warm distilled water were then injected through the tube, and allowed to remain four or five minutes. Since that time, during the last seventy-two hours, not more than three ounces of serum have been removed, and scarcely tinged with blood. A short time after the warm water was removed, the patient complained of sharp, shooting pains, with marked tenderness over the abdomen. These became so severe as to require a suppository of opium (one grain), which soon induced a quiet sleep, with no return of pain on waking.

Thirty six hours after the operation a slight but persistent cough was developed, probably due to hypostatic congestion, since change of position gave relief.

During the last three days the temperature taken in the mouth has not risen above $100^2/_5$, the pulse varying from 90 to 100.

Ever since the operation the patient has evinced a strong craving for food, giving milk the preference above anything else.

The subsequent progress of this case has been very favorable. On the 11th of December (the sixth day) the glass tube was removed, and a soft-rubber one substituted, until the 17th, when it was dispensed with. On this day she had a spontaneous and quite natural movement of the bowels.

Suppuration occurred in the suture tracks, probably from insufficient preparation of the silk worm gut used. On the 24th day of December (the sixteenth day) she was allowed to sit up in bed, the wound being quite healed.

A Note-Book and Visiting List.

Our publishers have arranged a neat little weekly call-list which will prove very convenient and satisfactory to general practitioners. Along with the call-list, which is not hampered by dates, is compiled quite a lot of useful information, such as a table of doses of many remedies, including the latest new ones; poisons and their antidotes; directions for analyzing urine, and blank leaves for memoranda on general subjects. The price is seventy-five cents.

A Paris correspondent writes the *Brit. Med. Jour.*:

"At the Academy of Sciences, M. Chauveau announced that M. Galtier has ascertained that the intravenous injection of rabic virus on animals bitten by rabid dogs conferred immunity on these animals—snch as oxen, cows, sheep—at least for four months. They are thus protected not only against previous bites, but also for a considerable time against future ones. Moreover, the operation is easy, for, unlike other viruses, it produces no local manifestations if it fails to be wholly introduced into the vessel."

[The Pasteur method used for the prevention of the development of hydrophobia has been suspended.]

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

Contributions for publication should be sent to Dr. R. L. Thomson, Association Editor, 3555 Olive St.

The Association Editor is individually responsible for unsigned editorials.

All remittances and communications pertaining to Advertisements or Subscriptions should be addressed to

J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, DECEMBER 29, 1888.

OPERATION FOR EXCISION OF THE EYE-BALL.

The editor of the *Southern Lancet* summarizes a paper on this subject as follows:

"Dr. Coppez, of St. John's Hospital, Brussels, publishes in the current number of *La Clinique* the details of a method of enucleation which he considers to be easier and simpler than the methods of Bonnet and of Tillaux now in use. The patient having been anesthetized and the eyelids separated by a speculum, a thread is passed transversely through the cornea by means of a curved needle; the ends of the thread are knotted and the loop held in the left hand. By traction on this loop the eye is drawn slightly forward, and with a curved scissors the conjunctiva is divided close to the corneal edge. The subconjunctival tissue is then torn through, and the tendons of the recti muscles come into veïew and are divided, next the tendons of the oblique muscles, and finally the optic nerve. Dr. Coppez claims for his operation that it may be practiced with fewer instruments—a curved needle, scissors, and a speculum; that the optic nerve may be divided more directly and at a greater depth in the orbit, which in the case of malignant tumors is of great importance; and that the consequent hemorrhage is less considerable than in the ordinary operations. The only objection to it, he thinks, is that the globe might be rendered flaccid by the escape of the aqueous humor through the needle-holes; but that is of little importance."

The use of a loop of thread passed through the front of the globe has long been practiced in this country in a certain class of cases. When an eye is flaccid the loop is of great service. I cannot see how anyone who has performed many enucleations can fail to recognize how much easier it is to remove a hard than a flaccid eye. When the globe is in a state of collapse it is no easy matter to avoid chipping off pieces of sclerotic that are very difficult of removal. My experience differs from that of Dr. Coppez in the matter of hemorrhage. More traumatism is done to the orbital tissues in the removal of a flaccid eye-ball than in the removal of a firm one.

Again, if malignant disease has so far advanced as to necessitate the removal of the globe, there is but one safe course to pursue and that is to remove the entire contents of the orbit.

CARRYING REVOLVERS.

American customs and methods are often highly respectable and deserving of imitation. One particular habit which has come to us with aTransatlantic introduction is,we venture to say, both useless and objectionable. We allude to the practice of carrying about a loaded revolver. This may be justifiable and even advisable in some parts of the western continent, but it is not usually a requisite in European life. We live, thanks to our paternal standing as a nation, in a land where cities and their slums do not rise and grow with magical rapidity, where our principal thoroughfares are for the most part well traveled and well lighted, and officers of order are distributed for the protection of life and property. We have still, it is true, a wide and thinly-peopled rural area and lonely roads in abundance, but our country population, as a rule, is peaceable and contented, and our roads are no longer the chosen haunt of armed footpads. The modern traveler chooses the railway route, and the highwayman has lost his occupation. It is as yet exceptional, moreover, to find even his modern representatives, the burglar and the garotter, furnished with firearms. The risk of detection should

they misapply these weapons is probably too great to commend itself to the majority of prudent law breakers. We fail to see, therefore, why revolvers should be thought by many in this country to be an almost necessary article of property. The ever possible temptation to use it at a wrong time should not be disregarded. With such a weapon in unwary hands, the consequences of an angry moment, as experience has proved too often, may be most disastrous. In view of this fact, and the absence of any ordinary need for its use, we can fully concur in Mr. Justice Mathew's opinion that it may yet be advisable to make the custom of wearing a revolver, without due reason shown, an indictable offense. As a check upon this too prevalent practice, we would again suggest that, like other firearms, like crests, and a variety of personal possessions, it should be subject to a tax, and that such tax should be of substantial amount."

[The self-satisfied complacency with which the typical Englishman regards things that are English, is very amusing to Americans. If the editor of the *Lancet* will pay us a visit he will find that some American customs and methods,instead of being *often* highly respectable and worthy of imitation,are good enough for even an Englishman to live by at all times. He will find that there is a law that is strictly enforced in most of our states making it an endictable offense to carry concealed weapons. Even in Texas, the home of the famous cow boy, this law is complied with.

The rise and growth of cities with "magical rapidity" is in no way incompatible with a high degree of civilization. It is not at all probable that any nation of people will ever reach that high degree of cultivation in christian principles that murder and robbery will not be known among them. Even the English, with their "paternal standing as a nation" may be startled by the fiendish proceedings of a "Jack the Ripper."

The suggestion of the *Lancet*, to tax men for the privilege of carrying revolvers, if carried out would defeat the purpose for which it was offered—it would make it lawful for men to carry loaded revolvers.

I am inclined to think that life and property are as safe in America as in England, but the typical American feels much too free to spend his time in meditating upon the privileges that paternity has bestowed upon him.

Artificial Pupil Through the Sclerotic Coat of the Eye.

Dr. George Strawbridge, of Philadelphia, has operated upon a man's eye by trephining through the coats of the eye near the cornea and stitching a flap of clear cornea over the opening. The result is to be given later.

It would be interesting to know the advantages that Dr. Strawbridge hopes to gain by this procedure. The publication of such experiments,before sufficient time has elapsed to prove that they are of value, throws discredit upon the profession.

Laparotomy for Pelvic Hematocele.

Dr. Charles B. Porter reports a case (*Bos. Med. and Surg. Jour.*) in which a woman, thirty-six years of age, was waked from sound sleep by a sudden, sharp abdominal pain, which was at first located in the left iliac fossa, but soon shifted to the right side and back. A circumscribed tumor soon appeared in the right iliac fossa which continued to increase in size till it contained about three pints of fluid. On the fourth day the patient was placed under ether, and Dr. Porter opened the abdominal cavity,and found a tumor,evidently cystic, its walls being very dark-colored and glistening. Using fine round needles and silk sutures the cyst wall was carefully stitched to the free edges of the peritoneum of the abdominal wound thus making a portion of the cyst wall about the size of a half dollar, extraperitoneal. Through this surface an incision was made, the bloody contents of the cyst removed, and the cavity thoroughly washed out with a hot solution of sulphonaphthol. A large drainage tube, reaching to the bottom of the cyst, was fastened in the wound. Ten weeks from the date of the operation the patient was discharged well.

Dr. Hamilton's Leave of Absence.

Surgeon General Hamilton has been granted sixty days leave of absence, from his post of duty, which began Dec. 20, 1888. Dr. Hamilton assumes the editorship of the *Jour. of the A. M. A.* Jan. 1st '89. He will spend his vacation in Chicago, looking over the new field of work for which he has been chosen and if he finds it to his liking he will resign his position as Surgeon-General and make Chicago his home.

Surgeon Walter Wyman has been called to assume the responsibilities of the office in the absence of the Surgeon General. Dr. Wyman was formerly a resident of St. Louis and his many friends here will be gratified to learn that by faithful and efficient work he has won a position in the ranks among the first men in the service.

Necessity for Wearing Glasses.

There still exists quite a prejudice in the minds of many against the use of glasses. This prejudice is not wholly confined to the laity, but is shared by many excellent physicians. It is due principally to the ill effects of poorly adjusted glasses, and partly to a lack of knowledge of the fact that if glasses are needed, it is altogether possible to learn what ones are needed and to so adjust them as to be a benefit to the eyes, and in every case to avoid doing injury.

By far the greater number of glasses that are now worn are fitted (?) by the individuals who wear them, that is to say, a man concludes he needs glasses and proceeds to an optician's store and selects a pair that he thinks suits him. It is needless to say that persons under forty years of age run some risk by so doing. Neither is it altogether safe for those over that age, though if the difficulty be only a loss of accommodation, or power to see objects at a short distance from the eyes, then a serious mistake is not likely to be made.

Some opticians assume the responsibility of fitting any and all cases that apply to them. As well had the druggist essay to treat all cases of diseases that may apply to him for medicine.

Quacks play no little part in lessening the confidence of the people in the efficacy of properly adjusted glasses. They know but little or nothing of the eye and its needs, and it but too often happens that the patient could have done better in fitting himself.

Unquestionably, the necessity for wearing glasses is becoming much more common than formerly, and the reasons for this are very apparent. All eyes that are not myopic (near sighted) are in active service at all times, except when they are closed or fixed upon an object that is twenty feet or more distant. It is easy to imagine how little rest the eye gets during the day, when its owner lives in a city. The varieties of employment in which the eyes are brought into constant and unremitting use during the entire working hours of the day, are rapidly increasing. Such work makes manifest many minor defects of vision that would pass entirely unnoticed but for the severe tax on the eyes. Never before has reading formed so important a part in the lives of so many persons as now. As civilization advances the demands for acute vision must increase.

It is not generally known that it is the exception and not the rule to find eyes that are perfect in shape. It does not follow, however, that all eyes that are not perfect in shape should have glasses fitted to them. The purposes for which they should be prescribed are, first, to prevent disease of the eyes from "eye-strain;" second, to aid in the cure of certain diseases by giving the eyes rest; third, to enable the patient to better pursue his avocation in life, and, fourth, for his comfort.

As a rule, spectacles add nothing to the appearance of the wearer, and they are always a source of inconvenience. Unless there is a definite object to be attained by their use, patients are better off without them.

Nearly every case of myopia should be corrected with glasses. Other errors of refraction should be corrected only when they in-

terfere seriously with vision or give rise to disease or decided discomfort to the patient. The degree of error bears no definite relation to the necessity for correction.

Enucleation of the Eyeball During Purulent Panophthalmitis.

One of the most difficult things in surgery or medicine that we are called upon to determine is the exact relation that concomitant events bear to each other. Now and then members of the profession rail against statistics, forgetting that medical science, as we have it to-day, is the result of experience, and statistics, though imperfect, are but aggregations of experiences.

Death may follow the enucleation of an eyeball while it is undergoing the process of general suppuration, but it is beyond the power of man to say that the patient would not have died from an extension of the disease had operative interference been withheld. Cases are on record in which death has followed both lines of treatment. The question naturally arises as to which offers the best prospect for a favorable result. We have no means of establishing a rule that will apply to each and every case. The best that we can hope to do is to compare the results in a large number of cases and deduce therefrom general principles to guide us in the treatment of such cases.

In an article on this subject (*N. Y. Med. Jour.*) Dr. Joseph A. Andrews says that the majority of cases on record, in which death followed enucleation of eyeballs while in a state of panophthalmitis, justify the conclusion that meningitis in those cases was due to infection of the orbital wound after the eyeball had been removed.

On the other hand, some of the cases leave the reader in doubt as to whether the menin gitis was or was not already excited before the enucleation was undertaken, and the data so far do not satisfactorily answer this question one way or the other, although the pretty uniform first appearance of symptoms pointing to intracranial disease in twenty-four or forty-eight hours after excision does make the idea of coincidence somewhat doubtful.

Dr. Andrews has enucleated twelve globes during purulent panophthalmitis, and in all the cases the healing of the orbital wound was smooth and without untoward symptoms. Continuing he said:

"In every instance, immediately after the enucleation the orbit was thoroughly washed out by the aid of a gentle stream from a fountain syringe. with a solution of biniodide of mercury (1 to 20,000); in no case was the compress bandage applied, only a few layers of carbolized gauze having been laid over the empty orbit. The frequency of the washing of the orbit was regulated by the condition of the orbital wound. In the two cases in which there was great swelling of the lids, ocular conjunctiva, and tissues of the orbit, the washing was repeated a number of times during the day by a trained nurse; for I consider it to be essential that this very important part of after treatment should be attended to by a cleanly and competent person, since the majority of the cases of this disease occur in a class of persons to a member of whose family it would be unsafe to leave the washing of the orbital wound, in their invariably unclean homes."

The question still remains a mooted one. The leading men in the profession are still divided in opinion in regard to it. Statistics are the only means by which it can be settled. Unquestionably many cases that result in death are not reported. Surgeons, especially those who live outside the great cities, avoid placing upon record cases that are calculated to prejudice the laity against the operator. Certainly the stage of the disease should have much to do with the decision in each case. If cerebral symptoms have already supervened, operation is out of the question. If suppuration has occurred in the orbital tissue surrounding the globe free drainage should be established even if removal of the globe is necessary to accomplish it.

Dr. Andrews calls attention to the fact that the number of cases in which death fol-

lowed enucleation for panophthalmitis is very small when compared with the number in which perfect recovery took place. He thinks enu cleation, under our present antiseptic methods, less dangerous than the non-interference plan of treatment.

Sulphonal.

A Berlin correspondent writes to the *Med. Surg. Reporter* that Dr. Bornemany has reported a case of severe poisoning from the administration of sulphonal. The chief symptoms were incoordination in the movements, first in the lower extremities and later in the arms, which vision did not seem to affect; and illusions and hallucinations. The drug did not seem to exert any unfavorable influence over the circulation.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE, M. D.

The Chicago *Times* is engaged in a war upon the abortionists of the city by the lake. It sent two members of its reportorial staff a male and female to interview in rapid succession leading members of the medical profession ostensibly, their mission being the securement of an abortion upon the young woman who was presented as a wronged but innocent sister of the young man.

As a matter of course the majority of those visited promptly refused to serve the applicants as they desired.

Some were brusque and abrupt and almost unkindly so, others again were gentle, kind and sympathetic, but firmly opposed to aiding in the commission of a crime, though disposed to aid the unfortunates in the direction of a wiser conduct.

The visitors wrote them all up and it makes decidedly interesting reading.

In the list were several who have previously borne good reputations, but by their own admissions they are not only badly smirched but unless they clear their record they are damned socially, professionally and morally and should be at once removed from the ranks into the penitentiary.

The *Times* is engaged in good work and we wish them God speed and "may the galled jade wince."

* * *

The ability to swim is said to be a natural function with nearly all kinds of animals, hogs and humanity being the leading exceptions. The inability to swim on the part of man is a marked defect in education.

It is a pertinent query as to whether our public school system in cities would not be much improved if the kindergarten attachments for the benefit of children in arms (whose mothers are attending afternoon teas and progressive euchre parties) were lopped off and in their place gymnasiums and facilities for teaching swimming adopted.

The *Med. Reg.* is responsible for the statement that:

"There is a lively movement in France in favor of gymnastics and athletic exercises generally, and M. Pasteur has just signified his approval of it in a letter to M. Paschal Grousset, who is one of its chief promoters. The eminent chemist declares that no one is better qualified to appreciate the value of 'physical' education than he is himself, for he entirely neglected it in his youth, and he attributes the extremely poor health which has been his lot for some years past to his neglect of proper exercise."

* * *

A statement is made in a recent issue of the *Brit. Med. Jour.* that:

"At a meeting, August 13, 1888, the Committee Consultative d'Hygiene Publique de France approved the following conclusions expressed in the report of MM. Bouardel, Pouchet and Ogier, on the use of saccharin in articles of food, from a hygienic point of view. 1. Saccharin is not an aliment, and cannot replace sugar. 2. Saccharin in food suspends or retards the transformation of starchy or albuminous substances in the digestive organs. 3. Saccharin therefore will most probably increase the number of affections known under the general name of dys-

pepsia. 4. The consequences of the daily consumption of saccharin have not yet been fully determined; but it is beyond doubt injurious to the digestion,and the Committee are inclined to think that it should not be used in articles of food.

"MM. Fischer and Rabow have lately investigated the manner in which different insects are affected by saccharin. Ants, flies, and wasps appear indifferent to it. A bee-breeder has observed that saccharin acts as an irritant to bees, and that they become angry when compelled to remain near this substance."

This last among the many products of coal tar may yet prove a patent aid in the adulteration of food, particularly of the confection class. The busy bee knows what he wants and when given saccharin instead of sugar he feels that he has been given a stone instead of bread and is righteously angry and does not hesitate to manifest it, but the blessed babies are not endowed with the discriminative judgement which will enable them to recognize the fraud.

* * *

The food we eat has much to do with our characters and our work. A large part of the ugliness, crossness and cussedness we see every day may very properly be traced to improper food, unskillfully cooked, and the dyspepsia resulting therefrom.

If the public-spirited female busy bodies eager for suffrage and the elevation (?) of woman above and beyond herself would concentrate their abilities in the direction of bettering the home and bill of fare within it the growing good of the world would be advanced. Appropos to this thought Dr. E.A.Wood in a recent address on dietetics says:

"Food and drinks, feeding and drinking, would seem to exert a wonderful influence over the habits of thought, the customs and manners of races of men, and their diseases also. By searching we might find that the egotism, conservatism and tenaciousness of the Englishman are as much the results of his beef and ale as is his gout; that the sparkling bonhomie of the Frenchman comes from his dainty cuisine and bubbling champagne, as does also his mercurial disposition and his passionate life; that the maccaroni and fortified wines bestow song and art on theItalian,as does beer and sauerkraut stamp solidity and patriotism on the German. America, ever able to give the world a lesson, contributes rush and dyspepsia as the product of hog and whisky."

* * *

The position is gradually being reached by the profession that many of the organic diseases hitherto considered incurable and necessarily rapidly fatal may by proper management be relieved altogether or at least so mitigated as to make life comfortable for many years.

Among these may be mentioned heart disease, diabetes and albuminuria. It has been very truly said that "regarding the significance of albuminuria, the profession seems to have passed from a position of partial knowledge with confident assertion to one of doubt and research."

Dr. A. B. Bisbee in some excellent notes on albuminuria in the *Med. Reg.*, Dec. 15,'88, says regarding the presence of albumen in the urine:

"It is the opinion of the majority of observers, however, that while some cases terminate in kidney disease, in many others no such result is to be feared, and instances are cited where albuminuria is known to have persisted many years with no bad results."

In children particularly is the prognosis favorable if the condition be promptly discovered and proper attention given thereto.

The tendency during the period of growth and development is certainly toward a favorable issue if due care be given to diet, digestion and assimilation—exercise not too much but just enough—the correct performance of duty upon the part of the general secretory system and above all an abundance of fresh air and sunshine coupled with religious regard for the protection of the surfaces by the wearing of all wool fabrics next to the skin during winter and summer—in fact the year round.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening December 15, 1888. The President, Young H. Bond, M. D., in the Chair, H. Jacobson, M.D., Secretary pro tem.

Dr. Lutz read a paper detailing a case of femoral hernia complicated with tumor, and presented specimen. (Not ready for publication).

Dr. Brokaw, Jr.—Dr. Lutz' case is not unique by any means. We have other tumors occurring in the hernial sac aside from the fatty tumors. I have seen one case where there was a cyst, and I have seen the report of a case in which multiple cysts were found in such a hernial sac. If the point of the intestine is collapsed, possibly that part of the colon about the sigmoid flexure on the left side, some part of the colon, some of those little teat-like projections, may have been separated and attached to the sac wall.

Dr. Laidley.—I remember a case which came under my observation, not like this, but one in which there was a tumor on the outside of the hernial sac. The patient died. I had concluded to perform an operation in this case, but a physician was called in consultation and he decided against the operation. In that case there was a fatty tumor covering the sac and a portion of it attached to the sac. The tumor was as large as a goose egg, and in this fatty tumor was imbedded the hernial sac, in which was a knuckle of bowel. The specimen is in my possession and it was of such a character as to deceive one of the oldest and ablest surgeons in this city. The specimen presented by Dr. Lutz is certainly rare. I have never seen anything like it.

Dr. Lutz.—I have nothing to add to what I have given in the paper except, perhaps, that the motive I had in presenting the case was to call attention to the complication and the difficulty in differentiating diagnostically as to what the real condition was, after the bowel had been returned into the abdomen.

It is not an unusual thing to have tumors in connection with hernias. The peritoneum, as we know, is the site of a great many neoplasms, but certainly any neoplasm occurring in connection with a hernia makes an already obscure and difficult condition still more obscure, for hernias are difficult to diagnose as to their contents, and it is no easy matter to lay out the line of action. You know the tendency is to perform an operation, and I believe that the injunction of the older surgeons to cut down upon a hernial sac and attempt a reduction without opening the peritoneum is rapidly going out of actual practice. You will remember that the older surgeons advised that after cutting down through the various layers covering the hernial sac until the peritoneum is reached, an effort should be made at reduction. I believe that is passing out of fashion, although many ostensibly practice it. The approved and adopted practice of to-day is to lay the hernial sac open, porforming the operation of herniotomy. If the bowel is not strangulated to such an extent as to necessitate an excision, we perform an operation for the radical cure of the hernia.

This case was interesting to me because it presented a complication for which, of course, I was not prepared, and which I did not understand at the time As it turned out, fortunately for the patient, the obstruction could be easily removed. All these hernias are interesting to the practitioner, and I reported the case simply as presenting one of the complications which are added on to an ordinary hernia.

Dr. H. C. Dalton.—I have a supernumerary kidney which, I take it, has been engrafted upon another kidney. The kidney upon which it is angrafted is smaller than usual, and not shaped like an ordinary kidney. The supernumerary kidney is about an inch in length, about an inch wide, and probably a quarter or half an inch thick. I have not examined the specimen further than to split it open in trying to discover the pelvis and if possible a ureter. I can not discover that there is a ureter, but there is evidently an effort here at a pelvis. I discovered something

which looks like a vessel or possibly a ureter, but I thought I would leave the specimen intact so the members could see it in situ. The specimen speaks for itself. I will state that the kidney has a perfect capsule and is exactly the shape of a kidney. The other kidney was very much hypertrophied.

Dr. Babcock.—It is a well known fact that the fetal kidney is lobulated, and in cases where there is only one kidney, that lobulation remains in the adult and it is easily conceivable that this fetal lobulation in these rare cases exists in adult life, may have gone on to a complete separation of one of these lobules, thus forming a small supernumerary kidney. This little gland looks like a kidney, there is the pyramidal structure, there is a distinct capsule, and in shape, appearance and texture it is apparently a kidney. Of course we can not state definitely without a microscopical examination.

I remember an autopsy in which one kidney was discovered. It was distinctly lobulated, and these lobules could be separated, and one of them could be picked up and moved independently from the rest of the organ, although it was connected to it by a distinct pedicle. This process of separation might possibly go on, of course, to complete separation. I have never seen a case where there was such separation, but it is certainly conceivable, and there are other abnormalities in connection with fetal development in the same line, such as the double uterus and vagina.

Dr. Bond.—I notice that Dr. Matthews, of Carthage, is with us to night, and we would be glad to hear from him. Doubtless he has some subject which has perplexed him and which he might desire to present for discussion.

Dr. Matthews.—In response to your kind invitation I will state that I have a case under observation that I will report to the society, and I shall be glad to receive any expression which anyone may have to make upon it. It is a case of what I take to be aneurism of the ascending aorta in a man probably 33 or 35 years of age. He was formerly a musician, playing upon a wind instrument for a great many years, and some three years ago he commenced to have neuralgic pains in the right arm and shoulder, and was treated by a physician for some time for that trouble without any especial relief.

Some six months ago a pulsating tumor presented itself a little to the right of the sternum below the clavicle. The doctor who was treating him, when he saw the tumor, took out his lancet and his first impulse was to open it; but he thought better of that, and, on examining it more closely he came to the conclusion that he had better not do it The case first came under my observation about a month ago. There is well marked pulsation of the tumor which is beneath the right clavicle, a little to the left of the sternum; in fact, the tumor has caused absorption of a portion of the sternum. The man is able to quietly go about his business. I have put him upon iodide of potassium and I tried to put him to bed, but it is impossible to make him see the necessity of remaining perfectly quiet. Now I would like to have the surgeons present inform me whether there is any operative relief for this trouble. As a matter of course it is only a question of time when the trouble will terminate fatally. There are no very grave constitutional symptoms at present, but it is only a question of time when there will be. He has a cough occasionally and has a good deal of pain in the right arm, but under the use of moderate doses of an opiate he rests well at night and through the day is comparatively comfortable. He is very hopeful and thinks he is improving, but the fact is the tumor is growing gradually larger. The question in my mind has been whether or not he has any chance of relief from an operation such as the tying of the common carotid and subclavian artery on the right side.

Dr. W. Coles.—Is there any bruit?

Dr. Matthews.—Yes, sir; quite distinct.

Dr. Coles.—Any heart symptoms?

Dr. Matthews.—Both heart sounds can be very distinctly heard, but the bruit is heard very plainly after the second sound.

Dr. Bond.—How about the pulse?

Dr. Matthews.—I compared the pulse on the right and left sides, and the pulse on the affected side is probably of a little greater strength and volume than on the other side, though there is very little difference.

So far as the cause of the trouble is concerned I know nothing. There is no syphilitic taint, no rheumatic history connected with the case, and there is nothing in the way of an exciting cause that I can think of, nothing in the way of a predisposing cause, unless it is the constant use of the cornet for a great many years before the difficulty manifested itself.

Dr. Laidley.—The case which has been reported brings to my mind a post-mortem that was made some years ago, and the names of the physicians associated with this case will indicate the difficulty in determining the character of the trouble, even after it has progressed to the extent mentioned by Dr. Matthews in his case. A patient consulted a physician, whose ability can not be questioned by anyone who knows him. The doctor treated him for hypochondriasis for a number of months, when he went to New York, being in business there, and was under the care of an able specialist, who used such means at his hand as developed the fact that the man had some disease located in the spinal cord. The man returned to this city and suffered a great deal, still being treated for some liver complaint. Medicines were given him which could not produce death, preparation of bromide of ammonia and valeriate of ammonia, and the man died suddenly. The post mortem was the result of the refusal of his wife to permit the doctor to sign a certificate. The postmortem revealed an aneurismal tumor, and the pressure was so great as to destroy the entire anterior portion of several vertebræ, so that the spinal cord was exposed. Now this escaped diagnosis of two good men. No one will question their ability to make a diagnosis. It indicates that people do not examine as carefully as they should.

Dr. Matthews.—Some of the gentlemen seem a little disposed to doubt the correctness of the diagnosis that I made in my case. Possibly I am mistaken. I hope I am, but I do not believe that I am. In looking up the literature, I find that in aneurisms of the ascending aorta, Dr. Wyeth (?) has operated a few times, and once or twice successfully, and he has reported a number of operations which have been made without relief in aneurism at this point. Some of them lived several years after the operation. The operation consisted in tying the common carotid and right sub-clavian arteries. Now the question which presented itself to my mind was whether, assuming that this is an aneurism, anything could be done for the relief of the patient by operative procedure.

Speaking of the difficulty in diagnosing these thoracic troubles, I will relate a case that came under my knowledge. A furniture dealer and very active business man, in carrying on his business, slept in his establishment. He commenced complaining of thoracic symptoms and general constitutional disturbance and consulted a physician in our town, who came to the conclusion that the trouble was due to his sleeping in his furniture room, so he sent the patient to Hot Springs, but receiving no benefit he came to St. Louis and put up at a hotel. He happened to be talking to a stranger who, after hearing him tell how he was affected, told him that he knew exactly what was the matter with him; that he had been effected just the same way, and that if he would go to a physician who made a specialty of the treatment of catarrh he would be cured. The man was feeling pretty bad, and of course was williug to do anything to be cured. He went to the specialist, who examined him and told him he had catarrh, and that he would cure him. He treated the patient for a while without any result, and the patient then went to a distinguished physician of this city who told him that he had a cerebral tumor. This made him feel worse, so he went home. Soon after this he went to Philadelphia and consulted DaCosta, who examined him but gave no opinion, telling him to call the next day. On the next day he had Dr.

Atlee examine him, and Dr. Atlee pronounced it a malignant growth of the posterior mediastinum, or an aneurism. The man returned home and lived a short while; after his death a postmortem was made which revealed a malignant growth situated in the posterior mediastinum, which was very extensive. I relate this case to show how difficult it is often to diagnose these troubles. In that case one gentlemen diagnosed it as catarrh, another aneurism, while Dr. Atlee pronounced it a malignant growth or aneurism, he could not tell which.

SELECTIONS.

THE RELATION OF THE TONSIL TO THE PRODUCTION OF INFECTIOUS DISEASES

BY ERIC E. SATTLER, M. D.,

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The tonsils, situated in the triangular depressions between the palato-glossus and the palato-pharyngeus muscles, commonly known as the anterior and posterior palatine folds, have rarely engaged the scrutinizing attention of the medical profession to any marked degree, on account of their apparent insignificance. I look forward, however, to the time, not far distant, when these small, neglected and wayward parts of the human anatomy will claim the undivided attention of the progressive spirits of our profession. Histolologically, the tonsil is a large lymphatic gland, consisting of lymphoid tissue with a number of mucous follicles. Normally from three quarters of an inch, by one-half an inch, the longest diameter being in the vertical direction, the tonsil should not project beyond the level of the pillars of the fauces. The physiological function of the tonsil is still in dispute,—whether it absorbs the superfluous saliva or soluble saccharine matter, or has some action in transforming starch into sugar—it is, by nature of its structure, truly and primarily an absorptive gland.

It will be conceded by all medical men that by far the greater number of individuals have more or less enlarged and pathological altered tonsils. These enlarged tonsils may give rise to little or no inconvenience, and it is only when an acute attack of tonsillitis takes place, or diseases occur that require an inspection of the fauces, that the medical practitioner becomes aware that the tonsils are not normal. It is thus that the general practitioner is generally the one that sees these cases at the time when radical measures can yet be successfully employed to combat the deleterious results that are almost sure to follow in every case. Enlarged tonsils may be found at almost any period of life. I have seen them frequently in infants from two weeks upward, and firmly believe that a large number of children are born with these structures already enlarged. There are many conditions in the period of early infancy that contribute to and influence the increase in size and pathological alteration of the lymphoid structure of the tonsil. Obstruction of the nostril, and consequent "mouth-breathing;" slight and transient "colds" oft repeated; inherited syphilitic and scrofulitic diatheses ; climatic, hygienic and dietetic conditions, are a few of the more important and frequent of these causes. In an examination of 200 children during the last six months, under 8 years of age, I found 139 cases with enlarged tonsils. The children were taken haphazard as they came along, every child that presented itself being examined without any reference to disease in the throat or other parts of the body. It would be interesting to collect, from a large number of observers, the number of enlarged tonsils found in all classes of individuals from the time of birth up. I shall continue my observations in my clinic and also in private practice, and hope, before long, to be able to report more fully and accurately on this frequent condition.

There are three distinct varieties of hyper trophied tonsils recognized by writers.

1. The soft hypertrophied tonsil, commonly met with in the early period of life, con

sisting of a simple enlargement of the tonsillar tissue and a corresponding increase in the size of the crypts.

2. The so-called "scirrhous" tonsil of Jarvis, characterized by a smooth exterior surface and a hard, cartilaginous feel to the finger, the crypts usually not being altered in any marked degree; in this tonsil there is an increase in the interstitial connective tissue, giving to it its hardness. It is this variety of tonsil, also, which frequently leads to severe and serious hemorrhage when excised, on account of the loss of contractility of the blood-vessels ramifying in the unyielding increase of connective tissue.

3. This variety is only the first modified by frequent inflammation and abscesses, which leaves the hypertrophied tonsil as a ragged, uneven, hill and-hollow sort of a mass between the faucial pillars.

In association with this enlargement of the tonsil, we frequently find evidences of chronic rhinitis and pharyngitis, swelling of the mucous membranes of the nose and fauses generally,—as well as of the Eustachian tubes,—enlargement of the lymphatics of the neck, impaired digestion and nutrition, hoarseness and huskiness of the voice, with more or less imperfect phonation and generally some impairment of hearing.

What, then, is the part played by these hypertrophied tonsils in the production of some of the infectious diseases? We have, of late, the accurate researches of Sappey on the lymphatic system of the air-passages, that help us over many difficulties in the consideration of the diseases of these parts and their symptoms. Of the lymphatic system of the trachea and bronchi Sappey writes: "I long believed, and it seemed in effect rational to suppose, that these vessels were more developed in the adult than in the child, and that they were more so in the great divisions of the respiratory ramifications than in the secondary or third divisions. But this opinion was in flagrant opposition to all the results of observation. It is, on the contrary, in the first stages of life that the lymphatic system of he respiratory mucous membrane is seen to be most developed; and it is in the divisions and sub-divisions of the windpipe that it attains its greatest importance. Hence, diseases of these parts are more frequent and severe during infancy. When one studies the lymphatic vessels of the windpipe of an adult, one sees that they are almost wanting at the upper part; but inferiorly, one can eject them at certain points without much difficulty, and thus obtain partial net work of large mesh and of poor appearance, but, nevertheless, very evident. * * * We are thus enabled to recognize that, in the adult, the lymphatic vessels of the air-passages increase both in number and size as they approach the pulmonary lobules, in which they arrive at the perfection of their evolution." Sappey further proves that "in the newly-born infant, in the first year of life, and during the whole period of adolescence, the lymphatic network of the tongue, palate, tonsils, and commencement of the larynx, is continued without attenuation or modification along the length of the respiratory passages, so that one can inject without interruption along the whole of the respiratory tract, even to the minute divisions of the bronchi. The system is even more developed in the fetus at term than in the adult. The contrast is, above all, remarkable in the trachea. * * * This striking difference between the development of the lymphatic system in the child and in the adult, is a fact which has hitherto escaped the researches of anatomists, and is deserving not only of their attention, but, above all, that of pathologists. It at once suffices to account for the frequency of diphtheritic affections of the first years of life, and for their rarity with advance of age; it explains also the extreme gravity of these affections."

Fraenkel, Froehlich, and Le Gendre have recently called attention to the possibility of general septic infection originating in the tonsil, although we find hints as to the probability of pathologically hypertrophied tonsils being the source and focus for the spread of septic matter throughout the system in the old, antiquated, dustworn volumes of the early part of last century. Froehlich re-

ports a case in which a severe attack of follicular tonsillitis was followed by peritonitis and death. The autopsy showed the tonsils and the thyroid gland swollen,and peritonitis with fibro purulent effusion present. Froehlich and his assistant both sustained slight autopsy wounds, from which resulted a severe attack of follicular tonsillitis. The disdisease was also communicated to a member of the family. Delavan thinks that, in view of the difficulty of differentiating the above disease from diphtheria, it is fair to infer that Froehlich's cases may have been the latter. The whole question, however, of the infectiousness of follicular tonsillitis is far from being settled.

Fox thus sums up Le Gendre's conclusions.

"1. There is a commonly occurring form of tonsillitis, symmetrical, varying much in severity, distinct from suppurative quinsy, due to septic causes, often attacking several members of one household and frequently prevalent at the same time as scarlitina and diphtheria.

"2. Short-lived outbreaks of so called infectious sore throat occur, associated with unsanitary conditions, the cases often varying much from one another, but intermediate in their general characteristics between tonsillitis and the two specified fevers.

"3. The throat lesion is the symptom most constantly present in both scarlitina and diphtheria, but its degree and character greatly vary. It is in some cases apparently identical in nature to the two fevers; and it may be absolutely indistinguishable from the common form of tonsillitis first alluded to.

"4. There is some reason for regarding scarlitina and diphtheria as essentially forms of tonsillitis which have acquired the power of infecting the system generally.

"5. The virus of these two fevers may probably enter the lymphatic system through the tonsil, producing tonsillitis as a primary effect.

"6. There is nothing in the occurrence of scarlitina and diphtheria in wounds and of other mucous surfaces than the fauces to contravene the hypothesis that the poisons of these diseases in ordinary cases enter at the tonsils.

"7. The tonsils are absorbent glands, and their functions may not improbably be connected with the absorption of certain elements from the saliva."

There is no better recognized law of the human economy than that an unbroken healthy physiological tissue, no matter of what kind or structure, is the best barrier against the absorption of foreign matter. As soon, however, as this continuity of tissue becomes broken, septic material is easily taken up, absorbed into the system by the lymphatics and blood-vessels, producing the characteristic symptoms of septic absorption due in each case to the particular kind of septic matter absorbed. The normal, perfectly healthy tonsil, hidden from view and mischief behind the pillars of the fauces, with its epithelium and mucous surfaces intact, would seem to reason by analogy, a very unfruitful resting place for the septic germs and matter productive of disease. On the contrary, the hypertrophied tonsils, extending and projecting prominently beyond the palatine folds, denuded in part of their protective epithelial covering, with enlarged crypts and a ragged uneven surface, stand like sentinels ready to receive the first onslaught of the septic microbes. Here the germs carried either in the inspired air, in the saliva, or in the fluids, such as water and milk, that are partaken of, find lodgement and a congenial soil.

For we must, at the present state of our knowledge, attribute the production of diphtheria and scarlitina to micro-organisms; but whether each disease has its specific germ, as Leffler and Klien maintain, or whether the germs are the productive elements of poisonous alkoloids called ptomaines that contaminates the system, remains for the moment a question of less importance. The fact remains that we must look to infinitesimal organisms as the primary causes of both scarlet fever and diphtheria. These organism or their products must find their way into the

system through some channel or other. We have in the hypertrophied lymphoid structure of the tonsil, so situated as to catch both the impurities of the air breathed and of the liquid swallowed, an absorbing surface and fertile resting place, both for the propagation of the bacilli as well as for their absorption through the lymph and blood-vessels. What other structure of the body offers such favorable conditions, so little resistance to the inroads of these producers of disease and destroyers of life?

The importance of the subject is out of all proportion to the attention which it has received from medical men and investigators. Hypertrophied tonsils are more frequently considered the effect than the cause of these diseases. The common way of disposing of this subject by many practitioners is to make use of that well nigh worn out and almost criminal phrase of "they will out grow it." How many mothers are to-day looking back sorrowfully to the time when their medical advisers, with the confidence of ignorance, told them their children would outgrow an otitis media purulenta, and neglected all treatment; how many grown up men and women, who followed this edict blindly, are today suffering the consequences of their rash faith. Neither will they outgrow hypertro phied tonsils; there may be a tendency to slight atrophy after the age of twenty-five years, but if the enlargement is great the hypertrophied tonsil will never disappear. Clinical facts also bear out the assertion that chronically enlarged tonsils are predisposing causes to scarlet fever and diphtheria. Wagner writes many observations that go to prove that persons with congenital or acquired atrophy of the tonsils are less subject to all diseases of the tonsils, to diphtheria in its various forms, etc." Lennox Brown states "that those suffering from enlarged tonsils are especially receptive of contagion; of this there is no doubt, and that he has an experience of several cases illustrating it from two aspects, namely, some in which the removal of enlarged tonsils has appeared to give special immunity to the disease, and others in which his advice as to the removal of these glands in a state of overgrowth having been neglected, diphtheria has been especially fatal. It may be remarked *en passant* that the same fact holds good in relation to scarlitina." And yet Lennox Brown is opposed to the local origin of these diseases!

The mortality rate of scarlet fever and diphtheria is certainly somewhat appalling; 10 to 12 per cent of children die from diphtheria die under the age of one year, 33 per cent are fatally attacked from one to five years, and 20 per cent from five to ten years. Statictics show that scarlet fever occurs most frequently in the third and fourth years of life, although a collection of deaths from scarlet fever, collected, in Great Britain, show 1,289 deaths under one year and 2,874 between one and two years, out of a total of 12,962 deaths.

Granting then that the chronic hypertrophied tonsil is the most frequent predisposing cause for diphtheria and scarlet fever, and believing firmly that if this predisposing cause is annihilated the frequency of this disease and its dreadful death-rate can be reduced to a comparative minimum, what shall be done to produce these results? The only answer can be, removal of each and every hypertrophied tonsil met with at the earliest opportunity. There are six distinct modes of removing the tonsil, so familiar to all of you that I will only briefly refer to them.

1. The removal by means of one of the various tonsilotomes. This is the simplest and the most frequently employed method. There is rarely any bleeding, and the greater part of the tonsil is removed, if the instrument is used properly, at one sitting. This method is especially applicable for children.

2. Removal by means of a long curved bistoury and forceps. The tonsil is pulled forward by means of the forceps and a slice of it cut off. This method is objectionable for several reasons. Only a small portion of the tonsil is generally removed, and there is danger of wounding the anterior pillars, from which nearly all severe hemorrhage arises. Of the five cases of fatal hemorrhage follow-

ing removal of the tonsil during 1887, the bistoury had been used in four cases.

3. Removal by means of the galvano-cautery. The tonsil is successively cauterized for eight or ten weeks—one sitting a week—the slough being allowed to fall off before the galvano-cautery is again applied. This method is applicable in cases where an operation with the knife or tonsilotome is refused or where there is a tendency to hemorrhage. It is far from being painless and necessitates a long time for treatment. I have now two cases under treatment in one of which the operation with the knife and tonsilotome was peremptorily refused, and in the other there was a history or bleeding easily (a pin prick sometimes bleeding for days) in which I am using applications of the galvano-cautery successfully. It is especially applicable for adults.

4. The removal by means of the cold snare. This method is especially applicable in the scirrhus or Jarvis tonsil, the snare being slowly tightened, thus giving the blood-vessels a chance to contract and preventing bleeding, which is so apt to follow in this variety of enlargement. It takes about two hours to successfully remove a tonsil by this method. I have had but one case, in which I used the snare manufactured by Ford and exhibited at the last meeting of the American Medical Association. This is by far the best snare for this purpose, as well as for removing polypi and hypertrophied tissue from the nasal cavities.

5. Removal by the galvano-cautery snare. This method is unsatisfactory at the present, on account of the insufficiency of the snares in use. If a galvano-cautery snare on the principle of the cold snare mention above could be manufactured no doubt the operation could be made a very frequent and successful one.

6. Removal by electrolysis. This is a long and tedious method, scarcely ever resorted to except in those cases where neither of the above methods can be successfully employed.

This paper advocates then:

1. That scarlet fever and diphtheria have their most frequent predisposing cause in enlarged tonsils.

2. The inspection of the fauces of all children from birth up, and the removal at the earliest moment of the enlarged tonsillar mass.

HEALTH GYMNASTICS AT BADEN-BADEN.

BY WILLIAM HUNT, M. D.,

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So great a place is now given to systematic gymnastics in orthopedic treatment, and also in other forms of muscular and nervous derangements, that a notice of one of the principal establishments for their application will be appropriate.

The institution alluded to is the one at Baden-Baden. The writer has recently had personal experience of its benefits. He was the subject of a severe accident in the early spring of 1887. Among other injuries, he had comminuted fractures of the right clavicle and the head of the humerus, and great contusions, if not deeper injuries, of the muscles of the neck. After partial recovery he went to Europe, and was obliged to halt on account of sickness and debility at Baden-Baden, and while there took advantage of the baths and gymnastics, though but for a short time, yet with great benefit.

The second floor of the great and beautiful hall of the Frederichsbaths (three hundred feet long, and, say, from thirty to forty wide) contains more than fifty machines adapted to the special exercise and to the massage of every part of the body. The details below are translated from a pamphlet by Dr. Heiligenthal, the director of the institute. (Die Apparate f. Mechanische Heilgymnastik und deren Anwendung im Grossherzogl' Frederichsbade in Baden-Baden. Von Dr. F. Heiligenthal Grossherzogl' Hofrath und dirigender Badearzt am Frederichsbade und den Grossh. Kuranstalten.)

The machines are mostly, if not all, those of Dr. Zander, of Stockholm, and were made there. Their cost, independent of the appliances to set them up and to run them, ranged from five hundred to fifteen hundred marks apiece. Most of them are entirely noiseless in their movements, and even those operated by steam make very little and no unpleasant sounds. They are superintended by well-trained assistants, who strictly carry out the written prescriptions given in each case.

The apparatuses are divided first into two series: First series, those moved by the patient (Bewegungsnehmer); second series, those moved by a motor, as by a steam or gas machine.

According to the conditions of their physiological operations there are three divisions:

1st. Apparatus for active movements, *i. e.*, those which have the immediate property of exercising and developing the muscles. Of this division there are three groups:

A. Active arm movements.

B. Active leg movements.

C. Trunk movements.

D. Balance movements.

2d. Apparatus for passive movements, *i. e.*, those which, without the help of the muscles, move the members of the body, and so stretch and soften the capsules, ligaments, and muscles.

This division contains one group:

E. Passive movements.

3d. Apparatus exercising mechanical influence.

This division has four groups:

F. Concussion movements (Erschutterung).

G. Hack, or tapping movements, (Hackung).

H. Kneading movements, (Knetbewegungen).

J. Stroking and rolling movements of muscles (Streichung and Walkung).

These last groups all comprise forms of steam or mechanical massage. The English equivalents of some of the names are hard to express.

We give an abstract of general remarks, taken from Dr. Zander:

"All movements should be taken lightly at first. The taker, although he may think them too weak, should not himself increase them on the first days of trial, for it is not only the one weak and apparently trifling movement that he has to consider, but the combination of them, which work together both upon the muscles and nerves, and he will often feel, particularly toward evening, much more tired than he would have thought.

"Remember that the gymnastics make a much deeper impression than the ordinary and mostly automatic movements of daily life.

"The balance-weight of the apparatus, the scale of which has been prescribed by the doctor, and which he has deemed sufficient, must not be altered by the instructor, excepting when it proves to be too heavy; on the contrary, it should not at once be raised should it seem too light. It may not be wise for weak persons to take all movements prescribed on the first days.

"A few minutes' rest is absolutely necessary for weak persons between each exercise. Stronger persons may take a group of them of the same order before resting. In this way the powers grow slowly but surely. Light exhaustion, or tiredness, need not be too carefully avoided. Labor to a certain degree of exhaustion is a necessary accompaniment of the growth of the powers. The great rule for patients is to use the movements up to the point of a light but rapidly passing fatigue.

"Sometimes there are patients who seem not to be able to overcome fatigue, even by very slight exercise. They must not lose courage, for this phase may last for weeks, and even months, but it will pass off, to be followed often by a rapid improvement. It is not to be allowed, for it is absolutely wrong for patients to alter exercises different from those that have been prescribed. The physician only is to do this. The patient, left to himself, will leave off those which are unpleasant, and which he does not see the use of, and take others which are more agreeable, if acting through his own will. It is natural

that those movements which are pleasant and easily performed should be preferred, but they may be made at the cost of not developing muscles when the use of them is fatiguing and unpleasant.

"The proper management of the breathing is an absolute necessity in gymnastics. Certain muscles, particularly those connected with the arms, chest, back, and abdomen, work in such a way that definite rules as to the relations they bear to respiration may be laid down. These have been carefully studied. Every active movement has a greater and a less stringent or tension moment. The first corresponds to that part of the movement when the resistance is overcome, as in weight raising, and is coincident with the shortening of the muscles; the last is when the resistance subsides, and the resting point is reached through a gradual lengthening or relaxation of muscle. Now as the act of breathing also has a greater end and a less tension point, there follows this general rule:—

"The point of greatest tension in movement agrees with expiration, that of less tension with inspiration. There are a few exceptions, which are named, in which the chest during muscular contractions takes inspirations. With these the high-tension movement corresponds with inspiration."

All the movements are to be made quietly and moderately. The following general directions are to be observed:

"To act without hurry, and to take sufficient rest between the prescribed movements.

"Not to tire one's self before or after the exercises—a direction particularly for all weak persons, and those inclined to or having heart affections.

"Immediately to inform the doctor if a great or lasting fatigue follows the exercises.

"The movements must absorb the attention of the patient, and he must not indulge in conversation while taking them.

"Dancing and night vigils must be avoided while taking the gymnastics for general weakness, or for sickness.

"The clothing should be loose and light, the waist, neck, and arms free; collars, corsets and garters should be taken off.

"A light meal, if any, may be allowed before the exercises. It may be necessary for weak persons to have a cup of tea or coffee. Milk-biscuit and bread and butter in moderation are harmless, but after a full breakfast an hour or two should pass before beginning the exercises."

The Baden-Baden institute has one grand advantage over most others. This is the magnificent system of baths, which are in the same building. Hot, cold, tepid, mineral, wild or gravel baths, showers, and douches of all sorts may be had.

Public or private baths may be used, all under trained assistants. The charges for advice, for the gymnastics, and for the baths are very moderate.

Probably nothing more useful in its place, and nothing more abused, has been introduced into practice within the last twenty years than massage. Rubbings and frictions have been practiced for remedial efforts from time immemorial, but the systematic, scientific introduction of massage is a thing of late years, and owes its extensive use, in this country at least, to Dr. S. Weir Mitchell more than to any one else. In spite of the lessons, however, which Dr. Mitchell has laboriously taught as to its use there is great ignorance on the part of most *masseurs* about it. This is not to be wondered at, since most of them have no anatomical or physiological knowledge, and very little comprehension of the power which they are weilding. The effects of massage on the different tissues, the circulation, and the organs, as demonstrated by von Mosengeil at Bonn, and others learned in the matter, are truly wonderful. It is, therefore, a great agent for good or for evil. *Satellite*, Nov.

ARE THE ENGLISH DEGENERATING PHYSICALLY?

A northern lay contemporary has been conducting a "doctors' symposium," with a view to elicit the opinions of the members of

the profession upon the vexed question whether we are as a nation retrograding in physique. The four following queries have been widely circulated: 1. Does your experience suggest to you that the race of Englishmen is degenerating physically? 2. Do you think that the great advance in the healing art is responsible for keeping alive much weak life that will in time affect the whole race injuriously? 3. Do you think that the increased indulgence in physical sports has, on the whole, a good influence on health? 4. Has it ever struck you that probably the great attention paid in health in these days may be producing an anxiety about bodily ailments which is a disease in itself? Answers have been received from a long array of practitioners, amongst whom we note the names of eminent London physicians.

It is satisfactory to note that, on the whole, considerable unanimity exists upon all the four points at issue. With two or three exceptions, all the medical men responding are of opinion that there is no foundation for fearing that any process of national physical degeneration is in progress. Several scout the idea as preposterous, and some are convinced that, so far from degenerating, we are rather rising in the scale of physical fitness and well-being. It is very fairly pointed out by others that the question involves vast issues difficult of precise determination; that degeneration and regeneration everywhere coexist; that the former is undoubtedly at work among town-bred populations as the consequence of unwholesome occupations, improper dietary, and juvenile vice; and that, while the optimistic view has most to urge in its favor, it would be wrong to ignore the existence of widespread evils and serious dangers to the public health. Amongst these evils and dangers are enumerated sexual indulgence in early life, premature marriages, over-pressure in education, improper food, increased tension of life, and the abuse of alcohol and tobacco. It would be interesting to inquire how far there is any evidence that these evils, which are very real and have always existed more or less in civilized communities, are actually on the increase. We doubt if any satisfactory proof of such increase could be afforded. The idea that sexual vice did not prevail in a state of Arcadian simplicity, or that it is at present as notably absent from rural districts as it is notably present in large centers of population, is a pure delusion. It would be difficult to prove that premature and improvident marriages are increasing, and there is good evidence for hoping that, so far from becoming a more drunken nation, we are gaining steadily in sobriety. Three possible sources of degeneracy are left—viz., over pressure in education, increased competition and worry, and a departure from early simplicity in diet. We think there is some danger from all three, but on the other hand, we are getting more and more alive to that danger, better able to cope with it, and on the credit side of the national health account we must reckon the increased attention paid to hygiene, the improved water supply of our large cities, the provision of better houses for the artisan class, the progress of medical science generally, and the cheapening of food and clothing.

The second query elicited a practically unanimous expression of opinion that the prolongation of weak life effected by improved methods of treatment is in no sense a danger to the public weal. It is pointed out with force and truth that, even granting that invalids are now kept alive who in former days would have quickly died off, their number is not sufficiently large to affect the race injuriously, and that the net result of medical science is not so much the prolongation of feeble life as the preservation of the vigorous and the reduction of infant mortality. Whether the averting from sickly children and invalid adults the extinction which nature, if unhindered, would quickly consummate is or is not a benefit to the race as a whole may be an interesting problem for the exercise of moral casuistry, but it is not a practical question. The educated sense of humanity demands that we should do the utmost for our suffering fellows, and no proposal for any form of euthanasia is at all

likely to gain even a hearing. It would be a purblind view to regard physique exclusively. The feeble body may contain a soul of inestimable worth, and the frail infant may one day be the guide, benefactor, or pioneer of his race. The Spartans, who exposed the sickly child to die, acted logically if the nurture of a race of hardy warriors were the only aim of national effort, but regarded from any other point of view their policy was as senseless as it was inhuman. The real point to be aimed at is not the refusal to prolong the life of the physically unfit, but the restriction of their right to propagate their unfitness. This is an unwelcome truth, to which we must some day open our eyes.

Regarding the value of athletic sports, the "symposium" brought out a practically unanimous verdict that, on the whole, their influence is beneficial. One observer thinks such sports are but rarely indulged in with a view of making the feeble strong, but are rather the means adopted by the strong for disposing of some of their superfluous energy. It is, no doubt, a serious error to order the feeble to indulge off hand in fatiguing sports without regard to the condition of their muscular system and circulation. From such haphazard advice much mischief will necessarily result; but hardly any competent person will deny that the pursuit of prudently ordered and temperate physical exercise is likely to prove highly advantageous to all but the victims of profound debility or grave organic disease.

The last query elicited a general consensus of opinion that the increased attention to health now prevailing is on the whole advantageous, and tends to promote physical well-being rather than to encourage or aggravate hypochondriasis. The neurotic and hysterical are, and always have been, with us. It is too readily assumed that their number is on the increase. Apart from such persons, a reasonable attention to health ought not to encourage the growth of morbid fancies. We are glad to see that several observers deprecate the dissemination of popular medical literature and the self-drugging that so largely prevail.—*London Lancet.*

SOME DERMATOLOGICAL DON'TS.

BY GEO. THOS. JACKSON, M. D.,
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Don't make your diagnosis from the history of a case, because if you do you will often be led astray. Make it from the eruption that you see, and then substantiate or destroy this by the history of the case, if you will.

Don't fail to think of the possibility of every case being either syphilis or eczema; and

Don't fail to master these two diseases as thoroughly as possible; because, if you learn to recognize these two, you will have gone a long way in diagnosis. If they can be excluded, then the field of possible "might be's" is considerably narrowed.

Don't make the diagnosis of syphilis on account of a syphilitic history, because you can often get a history of syphilis in a non-syphilitic case.

Don't expect much, if any, history of syphilis in a woman, because you very frequently will not get it. This is not because they are "gay deceivers," but because in them the early symptoms of the disease are often so slight that they are not observed by them.

Don't throw out the diagnosis of syphilis on account of an eruption itching, because some syphilides, especially the papular variety, do itch at times. The not itching of an eruption is better presumptive evidence of syphilis than is itching positive evidence against it.

Don't make the diagnosis of lichen planus from the presence of flat angular papules with depressed centers alone, because identical lesions will at times be met with in eczema, syphilis and psoriasis.

Don't depend upon getting the bleeding points springing out of the delicate pellicle after carefully scraping off the scales for your diagnosis of psoriasis, because you can produce the same thing in other diseases. In fact,

Don't depend upon any one symptom, but make your diagnosis from the general make-up of the disease as a whole.

Don't forget that many diseases of the skin are dependent upon disturbances in the general health of the patient. Therefore,

Don't fail to inquire into the performance of the functions of the various organs of the patient, and to put him into as good a physical condition as possible.

Don't tell your patient that it is dangerous to cure his skin disease rapidly, because it is not. If you

Don't know how to treat the case, ask advice of some one who does.

Don't encourage the popular notion that there is danger of an eruption striking in, because it never does.

Don't give arsenic for every skin disease, and, especially,

Don't give it in acute eruptions. Its sphere is in the chronic scaly eruptions, such as chronic psoriasis.

Don't forget that most cases of pruritus are due to internal causes, and that in them external treatment is wasted; and

Don't forget the bed-bug and the pediculus as possible causes of the trouble.

Don't forget that the greatest secret in the treatment of eczema, and many other skin diseases, is not what particular drug or formula is "good for" the disease, but a knowledge of the great principle that acute diseases need soothing remedies, and subacute and chronic diseases need stimulation.

Don't expect to cure an inveterate eczema with thickened skin by means of a soothing ointment, such as that of oxide of zinc, because you will only waste your time and the patient's money.

Don't use tar in an acute eczema, because it is a stimulant, and what we want at this time is to soothe the inflamed skin. It is appropriate to a subacute or chronic case.

Don't allow water to touch any form of eczema, because it always irritates in such a case.

Don't use a thick ointment on the hairy scalp, because it makes a disagreeable mess of the hair, and will not be "popular" with your patient. Even lard is not a pleasant vehicle for such applications. Vaseline and the oils are more elegant excipients.

Don't order the hair to be cut from the head of a young or old woman in any disease of the scalp, because, except in the case of peculiarly stupid or careless patient, it is never necessary, and always disagreeable to the woman.

Don't allow a patient with ringworm to go to school, because if you do you will be responsible for the spread of the disease.

Don't pronounce a ringworm case well and incapable of spreading the contagion until you are sure that it is well; and

Don't be sure about it until there are no more "stumps" on the scalp, and you can find no more of the fungus in the hair.

Don't use the name "barber's itch" for anything but trichophytosis barbæ, because it is well not to use terms loosely to cover several different diseases.

Don't use chrysarobin on the face or scalp, because it is very apt to cause a good deal of dermatitis with edema, and to stain the skin a deep mahogany-red.

Don't forget to caution a patient to whom you have given chrysarobin not to touch his face with his hands after applying the drug, because if you do you will have either a mad or a frightened patient in your office.

Don't pronounce a patient addicted to the use of alcoholic beverages on account of his having rosacea, because there are lots of other things besides alcohol that will cause it.

Don't use the positive pole of the battery for the needle in destroying hair by electrolysis, because if you do you will leave more or less permanent marks in the skin.

Don't apply a sulphur preparation after using a mercurial upon the face, or *vice versa*, because if you do you will raise a fine crop of comedones.

Don't use a camel's hair brush for making applications of corrosive sublimate, because if you do some of the salt will be left on the brush each time it is used, and you will soon have a stronger solution than you bargained for. Always use a little cotton on a wooden toothpick, or a splinter of wood.

Don't allow a fine-toothed comb to be used

on the scalp, because it scratches and irritates the scalp.

Don't encourage or advise the use of pomades on the healthy scalp, because they are prone to become rancid, and inflame the scalp. They are also unnecessary if the hygiene of the scalp is properly looked after.

Don't forget that dandruff is the most frequent cause of premature baldness, because if you remember this, you may be able to prevent the fall of someone's hair for some time. Therefore,

Don't fail to treat every case of dandruff. —*Med. Record.*

A CASE OF SCIATICA TREATED WITH LARGE DOSES OF ANTIFEBRIN.

BY AUSTIN FLINT, M.D., LL.D.

M. G——, aged twenty-five, laborer, was admitted to Ward 19, Bellevue Hospital, Aug. 14, 1888. The family history was negative. As regards the previous history there is nothing special to note until about a year ago, when the patient had pain, with soreness and tenderness, at the back of the right thigh, extending as far as the knee. This became so severe that he was compelled to keep the bed for two or three weeks. Under treatment at that time he improved, but has not been entirely free from pain since.

For the past three weeks the pain has been so severe that the patient has been confined to the bed most of the time. He has been treated with blisters, iodine, and a variety of internal remedies. Electricity had been tried before his admission to the hospital, but this gave no relief.

August 16, 1888.—The right leg was buried in flowers of sulphur for thirty-six hours. The patient said the pain was "perhaps a little better" after this application.

August 18.—Sulphur was again applied for forty-eight hours, but without relief. At the end of that time the urine had a distinct odor of hydrogen monosulphide.

August 25.—The patint was brought under the influence of ether, and the nerve was stretched by forced flexion of the thigh. This gave no relief.

August 26.—I requested Dr.Rutson Maury, the house-physician, to administer antifebrin in as large doses as could be borne, watching the patient carefully. This treatment was carried out even more vigorously than I had expected. At 11 A.M., Dr. Maury gave twenty grains of antifebrin; at 1 P.M., fifteen grains, and at 3 P.M., fifteen grains, making in all fifty grains within four hours. The patient became somewhat cyanotic, and a half-ounce of whisky was given with the last dose.

August 27.—The pain was nearly, but not entirely, relieved, and the antifebrin was given again in the following doses: 10 A.M., twenty grains; 12 M., twenty grains, making forty grains within two hours. It was not necessary to give whisky.

August 28.—The pain was completely relieved, and the patient walked about the ward without difficulty. The large doses of antifebrin taken on August 26 and 27, had no unpleasant effects, and the patient expressed himself as feeling perfectly well, absolutely free from pain, and able to move about as he did a year ago, before he was first attacked.

August 31.—The patient was discharged. He insisted on leaving the hospital to go to work. He promised, however, to report himself in case the pain should return. At the date of writing (Nov. 12, 1888) no report from the patient has been received.

The treatment with flowers of sulphur was tried in accordance with a suggestion quoted from Guéneau de Mussey, in the *Ther. Gaz.*, April 16, 1888, p. 276. This suggestion was followed out efficiently. The parts were covered with flowers of sulphur spread upon a cloth, and the characteristic odor of hydrogen monosulphide was recognized in the urine after the second application.

Gueneau de Mussey recommended that the application be continued for twenty-four hours. I have since learned that this treatment had already been tried in the hospital, but without satisfactory results.

In the treatment that was finally success-

ful, I intended to push the antifebrin to the extreme limit of safety, which, apparently was done, and certainly, in this case, with entirely satisfactory results, although it was thought necessary to administer these large doses carefully, and to watch the patient very closely.—*Med. Rec.*

THE OPERATIVE TREATMENT OF PRIAPISM. —Dr. Vorster, surgeon to the Bethany Deaconesses' House, Berlin, has published two cases of priapism, which were successfully treated by Professor Rose by means of operation. The first patient was of a hemorrhagic diathesis, and was admitted to hospital suffering from violent epistaxis. This was soon stopped, but severe symptoms of acute cerebral anemia remained—headache, vomiting, and extreme feebleness of right arm and leg. Priapism came on in consequence of straining at stool, and further cerebral symptoms followed—insomnia, pains in neck, paralysis of sixth cerebral nerve, and loss of consciousness. The author consequently supposed that the priapism was due to hemorrhage in the brain produced by the violent straining. The measures employed consisted of local cold applications, camphor, morphia, and chloral internally, long-continued tepid baths, and even the administration of chloroform, but all proved useless. After the priapism had continued for thirty-two days, Professor Rose determined, notwithstanding the hemorrhagic diathesis, to make an incision in order to relieve the paraphimosis which existed. This was followed by hemorrhage, which continued for three hours. The priapism then began to diminish, and in four days after the operation the penis had returned to its ordinary condition. Subsequently marked splenic leukemia developed. The author considers, notwithstanding the coincidence of leukemia with priapism which has been noted in medical literature, that here the leukemia cannot have been in any way the cause of the priapism, because it was not developed until the latter had ceased. In the second case the priapism was due to hemorrhage into the right corpus cavernosum, caused by an accident. This effusion exercised pressure on the veins, and thus caused stagnation of the venous blood in the corpora cavernosa. Professor Rose having diagnosed with certainty the occurrence of a rupture of the urethra, proceeded to perform external urethrotomy, with the object of relieving the great distension of the bladder. During the operation a hematoma was found bulging forward into the urethra. Upon an incision being made into this tumor the priapism disappeared. The patient was discharged cured in seven weeks.—*London Lancet.*

A SUPPURATING HYDATID OF THE LUNG SUCCESSFULLY TREATED.—Mr. Geo. Palmer reports a case in the *London Lancet* in which a man, æt. 25, suffered from a hydatid cyst of the right lung, which suppurated and opened into the bronchi. Small cysts and fetid pus were freely expectorated. As the patient was visibly becoming weaker day by day, it was decided to remove the contents of the cyst by aspiration.

Careful examination and exploration in various situations with the hypodermic needle showed that healthy compressed lung intervened between the chest wall and the suppurating cavity, which occupied the center of the lung; aspiration was therefore resorted to below the inferior angle of the scapula. After the needle had penetrated to almost its entire length, most offensive pus flowed freely into the syringe. More than half a pint of fluid was drawn off and replaced, without removing the needle, by injecting a tepid carbolic lotion (1 in 80). This was withdrawn after a few minutes. The man felt faint, but much relieved in his breathing, after the operation. Hemoptysis followed two nights afterwards, but did not recur. The aspirations and injections (in the same situation) were repeated twice at intervals of a week, the amount of pus withdrawn and lotion injected being less on each occasion. The patient gradually but markedly improved after each aspiration, and was discharged on Dec. 29, 1885. The expectoration gradually lost its purulent character, and for the last two years

he has been able to follow his occupation, that of a jockey, and has had good health.

Cottonseed Food Value.—G. (Starkville, Miss.) asks how much starch cotton seed contains, and whether it could be made available as food. The marc (the seeds after being deprived of oil), which we suppose our correspondent refers to, according to an analysis of Sacc (1885), contains casein 6 per cent., dextrin 0.2, sugar 2, fibrin 23.7, woody tissue 32, starch 9.6, greenish yellow oil 9.6, wax 0.8, and water and ash each 8 per cent. On grinding nearly one-half may be separated as bran, the yellowish meal remaining containing nearly double the quantity of the constituents most valuable as food, viz.: starch, dextrin, casein, fibrin and sugar. It will be observed that the proportion of casein is very large, being greater than in milk, whilst the starch and other constituents make it an excellent food for cattle. Whether or not cottonseed meal could be prepared by baking so as to make palatable bread is rather doubtful, though there can be no question as to its nourishing qualities in which the remarkably large proportion of fibrin is also of great importance.—*Western Druggist.*

"Protection of the Medical Profession".—The following significant communication appears in the *Lancet* of October 13:

"There can be no doubt that it is high time for the great body of general practitioners to take some steps to protect themselves against the present rush of men into the profession, which is out of all proportion to the number leaving it, and as a result of which medical men are reduced to practice all manner of shifts to gain sufficient to merely exist. Medical ethics are becoming a dead letter, and a once noble and honorable profession is becoming little better than a trade. It behooves every medical gentleman to exert himself to the utmost to save his profession from dishonor.

"I beg to offer the following suggestions for remedying the present condition of things: 1. That every member of the profession of Great Britain and Ireland be canvassed as to the advisibility of forming an association for the protection of the profession. 2. That the number of candidates admitted into the profession by the various corporations be regulated according to the vacancies occurring in tne profession, as is done in the army and navy. 3. That a fee be fixed below which a medical man may not charge, and if his client be unable to pay, let him rather give his services for nothing. 4. That the remuneration of all appointments be regulated by a council of the profession, and that no man shall take an appointment in opposition to this council."

"Medical Ethics are becoming a dead letter." In spite of the assertion of some of our cis-Atlantic, no ethics cotemporaries, we have here evidence that there is a Code of Ethics in Great Britain.

The suggestions offered by the *Lancet's* correspondent are more in the line of trades-unionism than any thing we have ever seen proposed. An association for the protection of the profession would undoubtedly be a good thing if conducted on correct principles. Suggestion No. 2 would seem to be but a Utopian dream—if Utopian. The third suggestion seems unadvisable under any circumstances, wouldbe productive of results almost as bad as are now complained of and would stamp as paupers many people that are not paupers. And after all the profession in England is uot so overcrowded as in the United States.—*Jour. A. M. A.*

Lanolin and Boric Acid in the Skin Diseases of Children.—The combination of lanolin and boric acid as an ointment is said to have a most gratifying effect in certain skin diseases in children, especially eczema of the head and face, intertrigo, and seborrhea. In the case of eczema, for example, with raw patches on the cheeks and yellowish crusts on the head, the surface is first cleansed in the usual way, and then dusted over with finely powdered boric acid. On the following day this washing and dusting over is repeated; already the inflammation will seem lessened. The process is then repeated

twice daily, the washing being always done gently, until the skin is in a condition to bear an ointment containing thirty per cent of lanolin and eight per cent of boric acid. In the squamous form of eczema with considerble induration, olive-oil is well rubbed in and then removed with castile soap, and an ointment containing one-half, or one per cent, of salicylic acid with thirty per cent of lanolin is energetically applied according to the degree of induration. This washing and application are repeated twice daily. The strikingly beneficial action of this course of treatment, which is less painful than the use of storng alkalies, or oil of cade, is ascribed to the penetrating properties of lanolin, which thus facilitates the entrance of salicylic acid into the deeper layer of the epidermis. Dr. Russel Sturgis, who advocates the above treatment, also finds the lanolin a reliable means of alleviating the irritation due to chronic uticaria.—*Brit.Med. Jour.*

[In a case of severe acne rosacea, Dr. Pollak, of this city, used an ointment composed of salicylic acid, half a dram, lanolin and vaseline, each half an ounce. This was applied to the face twice daily, and the result was most gratifying. At the end of a week scarcely a pimple remained and the comedones were reduced to less than one-half of their original number].

Tait's Method of Operating for Ruptured Tubal Pregnancy.—Dr. Theophilus Parvin exhibited to the Obstetrical Society of Philadelphia a specimen of extra-uterine pregnancy removed by Mr. Tait in the latter part of August. Pregnancy was supposed to have advanced six or seven weeks. Rupture had taken place two days before the operation. The patient was doing well when he last heard of her condition, four days after the operation. He thought that Mr. Tait was really the most wonderful expert abdominal surgeon he had ever seen. In his work no antiseptics are used; perfect cleansing of the hands with soap, water, brush and towel; perfect cleansing of the abdomen; incision through the skin and underlying tissues; hemostatic forceps used if necessary, but frequently not reqnired; the use of forceps to take up the tissues as the peritoneum is approached; the raising up of the peritoneum almost an inch so that there is no risk of injuring anything beneath the membrane; incision into the peritoneum; the moment the incision is made the introduction of one or two fingers or rather the index finger and the thumb. In this case the diagnosis was not positive, only probable, before opening the abdomen, but as soon as he had introduced the finger into the abdominal cavity, he said that it was a case of extra-uterine pregnancy with rupture of the tube. It took probably five minutes to bring up the ruptured cyst and ligate the tube with the Staffordshire knot. After removing the tube and ovary, water was poured in through a funnel to which was attached a rubber tube with a nozzle. The metal nozzle was pushed around in all parts of the abdomen so as to wash out all of the clots. In this particular case two pitchers full of water were used, a drainage tube was introduced and three stitches closed the abdominal incision. This patient did not have a temperature above 100°, and when seen three days later her recovery seemed almost absolutely certain.

Extirpation of a Meningocele.—Under the title of "Extirpation of a Meningocele, followed by Recovery" the *Amer. Prac. and News* translates from a German Journal as follows:

"Under the closest antisepsis Alberti began the operation by puncturing the tumor; without puncture it wonld have been impossible reach the pedicle. Two hundred and thirty gram. (eight ounces) of a clear amber fluid were evacuated, and the tumor diminished in size by more than one half, a membrane running from right to left could be felt, which ended anteriorly with a sharp edge, feeling like a tentorium cerebelli. It was now easy to reach the base of the tumor. Alberti placed au intestinal (Hahn's) clamp two fingers' distance from the occiput around the pedicle, and compressed the parts with his

fingers to prevent the escape of any fluid from the cranial cavity. He then cut through the skin close to the clamp; around the inner pedicle he placed a silk ligature and cut off the tumor. Immediately after operation the child became asphyctic, but recovered after the application of hot cloths. The wound was closed with sutures and covered with a bichloride of mercury gauze bandage. No drainage-tube was required. Soon after the operation convulsive twitching of the extremities occurred, lasting but ten minutes.

From this time on, recovery was uninterrupted. The wound healed by first intention. but from the third week the hydrocephalus increased, and is at present very decided on the occipital region.

This is very much like saying: "The operation was a perfect success; as for the patient he died."

Suture of a Loose Semilunar Cartilage. —R. H., a policeman, came to the hospital at the end of last December, complaining of there being "something loose" in the right knee-joint. On being asked the exact spot, he placed his finger over the inner fibro-cartilage, which, on his bending and straightening the joint, could be clearly felt to slip from its proper position. He said that sometimes when he was walking, the "slip" was so serious that the knee became "locked," that he suffered much, and that after the occurrence the knee swelled up, and that he had been temporarily invalided by the divisional surgeon. The patient was admitted on January 16, at which time he had a considerable amount of effusion in the joint.

On January 31, the limb having been duly prepared, a two-inch incision was made a little in front of, and parallel with, the vertical axis of the joint, and, on the synovial membrane being opened, a large quantity of serosynovial fluid escaped, and the front end of the semilunar disc was found to be loose,and curled into the gap between the condyle of the femur and the tuberosity of the tibia. The displacement was rectified, and the border of the cartilage was secured in position by a stout wire suture, which trans[illegible] dense fibrous tissue around the mar[illegible] head of the tibia. The joint was th[illegible] out with mercuric solution, drained by a few strands of silk, and dressed with mercuric wool, the wound being closed by a continuous gut suture, and the limb being encased in a gypsum splint, which had been previously moulded for the purpose. Next day the temperature reached 100.6°, but higher than this it never ascended, and during the chief part of his convalescence it remained at normal. At the end of six weeks he was discharged, but was advised to keep his knee stiff for a little while longer; a fortnight later, however, the limb was gently but firmly flexed under an anesthetic. He now uses the knee freely, has no pain nor inconvenience with it, and is about to resume his duty.—*Brit. Med. Jour.*

Aortic Aneurism After Galvano-Puncture.—Dr. Ralfe exhibited a specimen, showing the effect of galvano puncture on the sac of an aortic aneurism. The patient was admited under Dr. Ralfe's care in September, 1887, into the London Hospital, and died in August, 1888. When admitted, the aneurism had already made its way through the cartilages attached to the sternum, and the skin was already assuming a deep livid hue, whilst the pulsation was extreme. It was considered that the aneurism would shortly rupture externally. To relieve the extreme pulsation, Dr. Ralfe suggested galvano-puncture, which was performed by Mr. Mansell-Moullin. Improvement followed the operation, the swelling subsided and became harder, and the skin lost its livid hue. This improvement lasted some time, but presently the pulsation returned, and the patient was troubled with a violent paroxysmal cough. Galvano-puncture was again resorted to, and again the pulsation diminished and the tumor became harder, while the cough disappeared. In all, galvano-puncture was resorted to thirteen times, and always had the effect of giving relief to the patient. Finally, after nine months of treatment, a pustule appeared over the seat of an old puncture, and from that

[illegible] ook place between the skin [illegible] and perforation slowly en- [illegible] ad of a violent hemorrhage, [illegible] slow oozing took place, and the pa[illegible] gradually sank from weakness, without experiencing shock or pain. Dr. Ralfe claimed for galvano-puncture in suitable cases (*a*) prolongation of life in rapidly progressive cases; (*b*) relief of pain, undue pulsation and of paroxysmal cough; (*c*) the probability of an almost painless death, owing to the slow oozing from the thickened sac, instead of a sudden rupture, which, if it occurred internally, must be for a short while extremely painful.—*Brit. Med. Jour.*

An Electrical Duel growing out of the controversy between electrical engineers regarding the comparative lethal effects of the alternating and continuous currents of high intenity, as proposed for the execution of criminals in New York, the following singular challenge has been sent for what may be called an electrical duel:

"In conclusion I desire to offer Mr. Westinghouse the following challenge. He asserts that the alternating current is less dangerous than the continuous current, but he has not proved it. I have asserted that the alternating current is five times as dangerous as the continuous, and I have proved it to be so in many cases. I therefore challenge Mr. Westinghouse to meet me in the presence of a committee of electrical experts, and take through his body, from hand to hand, the alternating current, with the same number of alternations per second as used by the Westinghouse company, while I take through mine a continuous current. We will then commence with 50 volts, Mr. Westinghouse, of course, leading, and will gradually increase the pressure, leading, and will gradually increase the pressure, until either one or the other has cried 'enough,' and admitted his error, each contact to be for a period of five seconds. I warn him, however, that the alternating currents at 160 volts for five seconds has proved fatal in my experiments, and that several men have been killed by the low-tension Jablohckoff alterating currents.

Harold P. Brown."

A "Microbe Killer."—New York has a benefactor who has discovered, and sells at the modest price of three dollars a gallon, a "microbe killer," composed of an "electrical extract of steam and air." His circular announces: "The microbe is the only cause of fermentation; we must learn to stop fermentation by killing the microbes. Fermentation causes sickness and death. The microbe cannot be killed by medicine. More people get killed every year by drugs than by microbes. Doctors vary in their methods of getting microbes out of you; some do it by pulling them out through the skin with plasters, and others with a liniment. Others, again, try to shake them out with electricity, but medical science is baffled in not knowing how to kill the microbe without killing the patient; Radam knows how to do it, excepting in cases of low consumption—it is too late. The microbe killer will even kill the microbes on your teeth. Fits are cured in six months with the microbe killer—because fits are caused by people being so full of blood—so that when the spell comes on the blood runs to the head and brain. Insane persons can all be cured with the microbe killer, because it makes their blood as clear as scarlet. An attempt was made last summer to try the microbe killer on cholera and yellow fever, but the jealous doctors would not allow it. Take any disease. For instanee, you eat too much; fermentation goes on in your bowels; now drink microbe killer, and fermentation is gone, or the microbes are killed. I have found the genuine life preserver, and have made a vital revolution with the microbe killer. *Similia similibus curantur.* Close all medical colleges, kill all the doctors, and burn every medical book. I am the great Doctor Eisenbarth, who cures every one by his own art. My name is Radam."—*Boston Med. and Surg. Journal.*

The Preservation of eggs according to a German patent consists in keeping them in a tightly closed vessel in an atmosphere of carbonic acid gas. In this way it is claimed they may be kept indefinitely.—*The Western Druggist.*

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